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AN INTERVIEW WITH REAR ADMIRAL WILLIAM STUBBLEFIELD
FOR THE
NOAA 50th ORAL HISTORY PROJECT

INTERVIEW CONDUCTED BY
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TRANSCRIPT BY
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Molly Graham: This begins an oral history interview with Admiral William Stubblefield for the NOAA 50th oral history project. The interviewer is Molly Graham. Today's date is Friday, November 20, 2020. It's a remote interview with Admiral Stubblefield in Martinsburg, West Virginia. I'm in Scarborough, Maine. We're going to pick up with your time on the *Surveyor*, but can you say a little bit about what you were doing up to that point and where you were?

William Stubblefield: Yes. I was working with, first, Sea Grant, and the NOAA Undersea Research Program. Both were under Ned Ostenso. There was a gentleman by the name of Elliott Finkle, who was in charge of the Undersea Research Program, which did a lot of good work. They were trying to work with universities, similar to what Sea Grant does. Sea Grant works with funding universities with a broad array of science. The Undersea Research Program was funding universities for those projects, and those universities, that needed a submersible or remotely operated vehicle, or scuba, or the like. One of the things they did was to bring a habitat on line where you could actually live for a week at a time at a hundred and ten feet beneath the surface. The University of Southern California developed it and had it off Santa Catalina [Island], NOAA moved it to Saint Croix. Then, we moved it to the Florida Keys, where it's working today. The Undersea Research Program is still alive and well today, funding the habitat in the Keys, also funding some ROV work. They do less submersible work than they did in the past. But still, a very successful organization.

MG: Now, tell me about your assignment on the *Surveyor* and a little bit about that experience.

WS: Yes. Well, I have several tales on the *Surveyor*. First, let me paint the picture of the *Surveyor*. The *Surveyor* was commissioned in 1960 and was built as an ocean hydrographic ship for geophysical surveys. It was a wonderful ship once you got away from the pier and in deep water. It had the smoothest, most gentle ride you can imagine on a ship. Nearly three hundred and five feet long and, I think, around 50 feet wide. It was designed for the high seas. With that being said, it was not easy to get in and out of port. It had none of the maneuverability built-in that modern ships have today. It was a single screw, and most ships now are a dual screw or multiple screws. It did not have a bow thruster, which allows moving the bow one way or the other. It did not have direct control of the engine. It had an engine order telegraph that you had to send a command to the engine room, and an engineer on watch made all the changes. It was a ship that would have been in place in the 1930s and 1940s. And yet, it was a ship that we were using in the 1980s. With all this being said, when I was assigned to it, I'd never been on a ship that did not have a full range of maneuverability. The only thing that the *Surveyor* had that slightly improved its maneuverability was a large outboard motor over the stern. We did not deploy it all the time, but when we did, it could help move the stern. When I was assigned to it, my first thought was, "This is going to be a new ballgame. I've got to have some training." The Navy has a large freshwater basin near Little Creek, Virginia, where they have the scale models of many types of ships. I went down to that. You and your instructor sit on this replica of the ship that you will be going to. It's kind of like a large toy, a large motorbike or tricycle we're sitting on. But it had the maneuverability similar to the ship to which you would be going. In this case, a single screw, no bow thruster, no stern thruster, and engine order telegraph. The instructor that was showing me, preparing me for taking command – believe me, this is going to make sense in a couple of minutes. Pardon my building the case – [he] was a harbor pilot in San Francisco. He said, "Captain, you're going to one of the most difficult ships you can imagine

maneuvering. I'm going to tell you a trick. It's what we call a poor man's tug, and you drop the anchor over. But you do not drop enough chain to anchor the ship. You drop just enough to have the anchor bounce over the bottom. By doing so will change the pivot point on the ship and you can use a lot more power resulting in better maneuverability. Keep that in mind. That's the best way to go." I said, "Fine. Thank you." When I reported aboard the *Surveyor*, I told the Chief Boatswain, a guy by the name of King Claggett – "Chief, we're going to use this; what we call a poor man's tug sometime." He said, "Bad idea, Captain. Bad idea." Every few weeks, I mentioned to him we're going to use this. "Bad idea, Captain. Bad idea." Well, we were coming in from surveying Monterey Bay, going into San Francisco, the same place where this harbor pilot who had given me this trick worked. This was the first time that I had taken a ship into San Francisco, a harbor known for deceiving winds and strong currents. We'd been out something like forty days, and the crew was anxious to get ashore. Unfortunately, the pilots had overbooked, so we could not get a pilot or tug for a better part of twenty-four hours. I felt the crew deserved to go ashore. I said, "Well, this is going to be a good time to test the poor man's tug." I called the boatswain, said, "Chief, we're going to do it now." "Bad idea, Captain. Bad idea." If you've ever been to San Francisco at Fisherman's Wharf, you know there's a World War Two diesel submarine, and we were going to tie up behind this tourist feature. When you make your normal approach, you go at an angle to the pier, maybe ten or fifteen degrees, and then you just ease behind the ship in front of you. We were going to tie-up directly behind the diesel. I got a hundred yards offshore, and I said, "Let's drop the anchor." I could imagine the chief boatswain saying, "Bad idea, Captain. Bad idea." We dropped the anchor. The bottom of San Francisco harbor is not just mud, it is heavy, heavy clay. The anchor got embedded. My slow, reasonable speed didn't do anything. Well, I went from slow ahead to standard ahead, full ahead – nothing happened. I said, "To heck with this. We've got to at least start moving." We're about a hundred yards offshore. Fortunately, the ship had drifted. Instead of pointing toward the diesel submarine, it was now pointing toward the pier, ninety degrees to the pier. I said, "Flank speed ahead." As the anchor broke free of the mud, it was like a slingshot. The *Surveyor* sprung forward. Do you remember the *McHale's Navy* scenes, where they would run into the pier, and all the buildings would fall around the ship? I had this sensation of *McHale's Navy*. I was going toward the pier. No way to slow it up. We hit the pier going as fast as the *Surveyor* would go in 100 feet. We went maybe fifteen to twenty feet into the pier, but fortunately, we did not get to the buildings. All the buildings were standing. I looked over the side and said, "Okay, Chief. Put the line over. We're here." [laughter] I'm sure he said to himself, "It was a bad idea, Captain." but he had the courtesy not to say anything, which I very much appreciated. That started not only a good working relationship but a good friendship. I never attempted another maneuver that I thought King would say "Bad idea Captain."

The next day we had an open house. I was embarrassed by running into the pier. As the families came up, the children would look at the big V in the pier and ask their mother how it got there. She looked at the ship and just kind of giggled. But, to the Admiral's credit – of course, I felt very, very bad about it, but nobody was hurt. No real damage was done. The ship was not hurt at all. The pier could be repaired for a few thousand dollars. I called the admiral and said, "Admiral, I really messed up." His only comment to me: "That ship is a bear to handle." He had been a previous Captain of the *Surveyor* and had a couple or so, let's say, more severe instances than that. That was my experience of the *Surveyor*. But it proved to be a phenomenal ship to work on, one of the most enjoyable experiences of my uniformed career. On the *Surveyor*, we

traveled from the Arctic to Antarctica. We were in the Arctic the same time the whales were captured in the ice. Do you remember that?

MG: I don't think so.

WS: Anyway, it became an international scene. There were three whales near Point Barrow, Alaska that were captured in the ice. We could listen to the Point Barrow radio station. The natives, the Eskimos, found the captured whales to be a real hindrance because they did not want to kill them. They counted against their quota, and they were not the type of whales they wanted. The whales were being ignored. Then it became an international news event. All the news networks throughout the world begin covering these three captured whales. The Point Barrow Eskimos took a total reversal; they could not do enough to help the whales. At the same time this happened, I picked up some ice in the prop, and so I had a damaged propeller on the single screw I had. I had to get across the Gulf of Alaska, which can be notorious that time of the year. I thought to myself, "Man, I've got to cross the Gulf of Alaska with a damaged ship with not very much speed, and everybody's concerned about the whales. Nobody's concerned about me." [laughter] Anyway, the bottom line: the whales got out. The Eskimos were happy. They got a lot of credit for the humane work to rescue the [whales]. There were even two icebreakers, one from the US and one from Russia, that went in to try to rescue the whales. And we got across the Gulf of Alaska without any problem.

But the real fun with the *Surveyor* was taking it down to Antarctica. We picked up pilots in Chile, Chilean pilots, that would drive us through the South American Inside Passage. You've heard about the North American Inside Passage. It's beautiful – Canada and Alaska. But nothing in this world compares to the Chilean Inside Passage. It is the most spectacularly beautiful place that I have ever seen, and I have been privileged to have seen a lot of the world. Except if you're the commanding officer of a ship, because you're taking it through these little narrow passages, rocks everywhere, and the currents were really raging. Pilots would go through this area full speed ahead, and every skipper knows that speed kills on a ship. We're conditioned to going at a slower speed. However, it appeared that the only three commands the Chilean Pilots knew were: Full speed ahead, right full rudder, left full rudder. I am getting very nervous. The pilot has full command, but as the captain I kept full responsibility. I was getting more nervous and walking closer and closer to the Chilean pilot. He knew I was getting nervous. I got within a few feet of him. He said, "Captain, look over there. You see that ship that's belly-up, turned upside down? That captain didn't listen to me." A couple of minutes later, "You see that ship that's run aground sitting on rocks? That captain didn't listen to me either." I immediately backed off and let the Chilean pilot do it himself. He did a great job, and we had no problems. One of the fun things about the *Surveyor* trip was that our assignment in Antarctica carried us from the Weddell Sea to Elephant Island to South Georgia Island. Now, most folks do not put these three places together. I'm a big fan of Ernest Shackleton, and I was the only one on the ship that recognized the significance of it. Shackleton and his ship got caught – the *[Endurance]* got caught in the ice in [Weddell] Sea. They went by small boat to Elephant Island, which is just a little hunk of rock with nothing but elephant seals there and no food. In desperation and knowing the party could not survive long, he left his people, he and four of his crew made this, nothing short of a miraculous voyage, from Elephant Island to South Georgia Island. He was doing the navigating only celestially using sun lines and star fixes and found South Georgia Island after nearly ten days of exceptionally poor visibility. It was a masterpiece

of navigation. If Shackleton had missed South Georgia on that first pass, there would not have been a chance for recovery in the face of the strong prevailing westerly winds and currents. Those on the small boats, and those left behind on Elephant Island, would have perish. Thanks to Shackleton's superb navigation, the party ended up on the south part of South Georgia Island. Their journey from the southern part of South Georgia to the north coast, across very high, rugged, uncharted mountains is still viewed today as one of the pinnacles of mountaineering. Supposedly once they reach the top, they sled down the northern face using their parkas and hoping that they would not go over a cliff. I've been a big fan of Shackleton since my navy days in Antarctica, and I was thrilled to be on the island where Shackleton had spent his last days. He died of a heart attack, I think, in [1922], getting ready to make another trip to Antarctica. He's buried in South Georgia Island. Why is he buried in South Georgia Island? A beautiful story. A fun story. And I'm fixing to tell you the fun story. I don't know if you've seen pictures of him. But he was a man's man and a woman's man, an exceptionally handsome, rugged guy. Not only was he a great explorer, but he was also a phenomenal womanizer, as well – women in every port. In those days, the expeditions were self-funded. Shackleton had no money; his wife supported all the expeditions. She knew that he had lovely women at every port. When he died unexpectedly, they shipped the body back to Argentina, and they cabled his wife and said, "So sorry. Sir Ernest has died. We're sending the body back to England on the next ship." She wired back and said, "I don't care what you do with the son-of-a-bitch, but don't send him home." In addition to his grave, there is a small memorial for him on South Georgia, and a detachment of around ten to twelve British soldiers. Their only job is to pay tribute to Ernest Shackleton. I have a prized photograph of Shackleton's grave in the foreground, the *Surveyor* in the background. So that's my story of Sir Ernest Shackleton. One other story that I have not told over the years because it was so frightening, but I did tell it the other night. We have a bunch of old NOAA folks that get together once a month on Zoom. I told this story, and it was news to all of them. The *Surveyor*, as I said, was not a very maneuverable ship. We had this stern thruster, which was of some, although limited, use for maneuvering. The stern thruster was down for repairs, and so I couldn't use it. The scientists wanted to go into this huge bay, actually, the same one that Shackleton had landed on in Southern South Georgia. It's five miles wide, so a fairly large place. Absolutely no wind. They wanted to go in and collect some samples. Even though I did not have a stern thruster, I said, "Sure. Conditions are fine to do it, no wind." Well, once we got inside the bay, the wind picked up to hurricane-force winds, and this ship did not have the maneuverability that I really wanted. The bay was a bowl-like, very deep in the middle with steep sides. The depth of the bay was too deep to drop the anchor in order to swing on the anchor. I got as far to one shore as I could and started making my turn. Well, the wind got caught on the bow, and I could not cut the wind. We rang up full speed. All of us on the Bridge were so enraptured, watching the bottom get higher and higher, getting less and less water underneath us. We weren't paying a lot of attention to how fast the ship was going, the speed. We had assumed that the Engineer on Watch had responded to our Engine Order command and had increased speed as ordered. Well, the officer of the deck, who was a very proper, very astute young lady, a very capable officer, happened to look and see that we were not responding in terms of necessary speed. She picked up the phone, and this lady, who I could not envision ever uttering profanity in her life, called the Engineer on Watch, and it was language that would befit any hardened sailor. We could just see the old engine needle RPM go up. She got across to him. We got enough speed that we were able to cut the wind. But we had only five or six feet of water beneath the keel at the time – much too close. So anyway, those are

remembrances of the *Surveyor*. You're going to ask in a couple of minutes, and I'm going to get ahead of myself because those are most of the *Surveyor* stories. Fun crew. Did a lot of good work. Great ship to sail. I had either the honor or misfortune of being the Admiral when we had to lay the ship up. I gave the farewell speech on the *Surveyor*, it'd been the heart and soul for many people, including mine.

MG: Didn't it have the distinction of going the farthest north and as farthest south, at that point?

WS: Certainly, of any NOAA ships. Not compared to the icebreakers – the Navy and Coast Guard icebreakers made those trips are routinely, but of the NOAA ships, exactly right. Yes.

MG: Were you on both of those northernmost and southernmost trips?

WS: Yes, I was.

MG: Wow.

WS: I'd been the same way on the Navy icebreaker. I repeated the farther north and farther south, both with the Navy icebreaker and then later, with the NOAA ship.

MG: Can you tell me more about the ship's assignment? You mentioned collecting samples. What was the research being done onboard?

WS: In that case, most all NOAA ships, especially the oceanographic ships, vary on the need of the scientists. We did a lot of the work conducting bathymetric surveys, both in the Gulf of Alaska and off California, the kelp beds, and the like. It was a beautiful ship for hydrographic surveying with its Sea Beam capability for doing large swath mapping. The Antarctica trip, though, was supporting the National Marine Fisheries Service study of seals and looking at the life cycle, life dynamics of seals, in this case, elephant seals. So that's what took us to this very remote, very isolated island called Elephant Island.

MG: Was this around the time of the Exxon Valdez oil spill? [Editor's Note: The Exxon Valdez oil spill occurred in 1989.] Were you near that area or impacted by that at all?

WS: Not directly impacted. I'd been up there doing a survey with the Gulf of Alaska shortly before. We kept attuned to it, some of my colleagues. I'd left the *Surveyor* by the time we had the Exxon Valdez. A story with the Exxon Valdez – John Knauss. Do you know John's name?

MG: Yes.

WS: Administrator of NOAA at the time. He had been in Rhode Island, dean of the School of Oceanography at [the University of] Rhode Island. As he was negotiating with the president of Exxon, trying to get some settlement for the amount of damage; the two of them personally did much of the negotiation. The Chairman of Exxon said to Dr. Knauss, "You know, John, we're not getting paid near enough for what we're doing." John looked at him kind of quizzically and said, "What's this 'we' stuff?" John's salary was probably a hundred and fifty thousand; the

Chairman of Exxon was probably well in excess of a hundred and fifty million dollars a year. So, no, I was not directly involved. But NOAA played a key role in both, from the Fisheries and the surveying. I think NOAA sent some survey and fishery vessels to the area and actually went in the inlet at Valdez entrance.

MG: Can you describe your next role, unless there is something I'm missing from the *Surveyor*?

WS: In my next role, I went to work for the chief scientist of NOAA, who was Ned Ostenso. My main duty was to put together a credible argument to replace the NOAA fleet. A gentleman by the name of Charlie Kearse, who was a legend within NOAA, and I headed the project, and we worked with all the line offices of NOAA, especially the oceanography, the fishery, and hydrography, and developed a three-volume package that would defend the need for modernization and vessel replacement. It was well-received on the Hill. Charlie and I each got the Department of Commerce Silver Medal for the effort that we led. Near the time of the completion of the study, the money available for such projects was getting tight, so the study was never utilized as planned but is still being used as referenced documents. More recently, large parts of it were used by the Department of Commerce and NOAA as they started another ship modernization program. When we started, the ships were getting old and through the years the ships kept getting older. Even though NOAA now has a fairly aggressive modernization program, I think our study was useful, and it set the foundation, the basis, to justify on the Hill, the more recent ship modernization. There was another factor to that as well. I think I probably alluded to it, or I may have mentioned it the other day, and I'll come back to it. One of the real roles I had, when I took over as Director of NOAA Corps and the Office of Aircraft and Ships, was contact with the Hill, with congressmen, and their staff. As is typically the case, the Department of Commerce, and hence NOAA, attempted to limit access to Congress, so I did not have free access to the Hill's congressional staff. Thanks to Ned Ostenso and thanks to the fleet modernization, I previously had gotten to know the Hill staffers and the Hill members under less tense situations. During our fight for survival, even though I did not have free access to the Hill, knocking on the front door, I was invited to come in the back door or the side door. So the time spent on getting new ships, and also a couple of new aircraft, into the NOAA fleet helped a great deal later during our fight for organizational survival.

MG: Can you talk in a little bit more detail about the fleet replacement and modernization study? Had an assessment of this kind of been done before? What needs did you identify?

WS: No, not a concerted effort. Over the years, individual ships, individual missions, were developed and the need for either adding a new ship or replacing the ship or an aircraft had been done. But these assessments were done in isolated instances. This was the first time that we looked at modernization on an integrated [level] throughout all of NOAA's needs. We had a series of diagrams, showing various scenarios, and working on the life expectancy of a ship, being, I think, around forty, forty-five years of age. If you wait too late to repair a ship the cost becomes quite expensive. We developed what we called a waterfall or the cliff scenario, and we had all the NOAA ships lined up as they're approaching their drop-dead date where the repair became too expensive. We did this for the whole fleet. We had a justification for the mission, the mission demands, the operational demands, the livability – everything you could think of was put into these studies. We had several naval architects working with us. It was certainly not a

fly-by-night. I suspect we had at least seventy, maybe a hundred people working on different facets of the Modernization Study. We had ship architects from MIT [Massachusetts Institute of Technology]. We had folks at the Navy's David Taylor Modeling Basin conducting studies under various sea and wind conditions. You name it; we had skilled individuals studying many aspects of ship needs. We also looked at various shipyards, both in the US and in Europe, and how they had addressed their modernization, and we incorporated their thoughts. It was about a two-year effort full-time for Charlie and me, and part-time for a lot of other people.

MG: Two years for the plan and study, or two years for implementing parts of the study?

WS: Well, actually, we never really implemented. We had it presented, and then because of the budget crunch and because of pressure from the Inspector General, which comes in later, we found that it was not the political environment or the economic environment to implement. What we had was a thorough study that has never been implemented in a systematic way as designed. The value through time has been large sections of it have been used for directed studies; sections that would have been used to justify a new oceanographic ship; sections used to justify building a new Fisheries ship. So even though it was never implemented the way we had hoped, it was still implemented in bits and pieces through time. One other thing, if I could add. I think the other thing it did was it added credibility to NOAA's approach. I never heard a single person that questioned or challenged the justification that we had. I did hear a lot of folks say, "Well, it's too expensive of a price tag. We cannot do it now. We don't want to start implementation, get started, and we cannot finish it." There were a lot of justifiable reasons, but nobody ever questioned the credibility and the reasonableness of the study.

MG: Can you clarify the timeline for me? You got off the *Surveyor*, and in 1990, you had this new position where you worked on the study?

WS: Yes, that's exactly right. Then, a couple or so years after that, I was selected as rear admiral lower half, which is a one-star and working for Sig Petersen, who was the admiral at the time. I replaced Chris Andreasen, who went on to great recognition as head of the International Hydrographic Office in Monaco. One of my first tasks, being the one-star in charge of the full fleet, was we had a ship coming back from Antarctica. When they got into equatorial waters, near Easter Island, the ship had a swim call. Swim calls are as old as people have been going to sea. Many ships have a similar form of entertainment. Usually during swim calls, other things are integrated. The people who want to swim, picnics on the weather decks are involved, making it a fun day. But part of the fun day for those people that have guns on board were being able to check their guns out and have target practice or skeet shooting. There were several personal guns on board. Going into the swim call, we had probably twenty to twenty-five people in the water. We also had a small rescue boat there if people got tired, and we had netting for people to climb up or hang on to if they were getting tired. Out of nowhere, a great white shark hit one of the swimmers. The shark hit one of the men and, for some reason, spit him out. Eventually, he had to have something like three-hundred stitches put in this guy's leg. Have you heard this story?

MG: No.

WS: Okay. Three hundred stitches in the guy's leg. They got him to the rescue boat without any trouble. By then everyone in the water was alerted to a shark in the vicinity. A young lady, twenty-one, twenty-two years old, started swimming toward the rescue boat, got to the rescue boat, when the shark hit her and pulled her down. The folks in the rescue boat pulled her up. The shark pulled her down. Folks pulled her up. She was kind of like a yo-yo. On one of these occasions, when she was pulled down, they could hear a big pop. She came back to the surface minus a leg. She had only about an inch of her leg beneath the groin. They pulled her in the boat, clamped the artery, and rushed her back to the ship. Everyone in the water begin heading toward the rope ladder. The girl's roommate was dangling on the rope but did not have enough upper body strength to pull herself out of the water. The shark begins swimming toward her. Here's where the guys who had checked out their guns became hero's. They saw what was happening, and they started shooting at the shark. Whether they killed it or not, no one knows, but the shark swam away. Both the lady and the fellow attacked by the shark were brought on board. We had a nurse who was skilled in emergency room triage. She was working on the guy which required three-hundred stitches and a shark bite – with of course, contained all sorts of bacteria. She had to keep flushing the wound and stitching it up. Simultaneously, she had another patient that was minus a leg, both requiring emergency medical attention. We were fairly close to Easter Island. But the medical facility on Easter Island was not as good as what we had on the ship. I was in DC at the time. Again, I was a one-star. They called me and told me what was happening. They said, "We got to have these folks evacuated." I called the Air Force and they [said], "Yeah, we'll take care of them. We'll send a plane down." That night, when I got home, I realized at Pope Air Force Base – a plane was coming in, physically lost an engine, which plowed through a group of airmen who had been assembled, killing ten or twelve of them. Yet, when I talked to the Air Force, I had the impression that they did not have a problem. They were facing their own internal accident, and yet, they were fully committed to helping us. They flew an aircraft, with a full medical team of very skilled doctors and nurses, to Easter Island where the two patients were moved from the ship to the plane. Flying back, the lady had lost so much blood. We were told later that she had lost something like eighty percent of her blood, and they kept putting plasma in her as fast as they could. She had lost so much blood; she could not carry oxygen through the body when they were flying at altitude. They needed to be flying close to the ocean. At low altitude the turbulence was so great, they had to get up higher. The whole trip back was in a yo-yo effect, down low for her to get some oxygen, up higher to avoid the turbulence. We in NOAA made a decision that in order to keep her alive, she needed as much support as she could. Any relative, any old boyfriend, whoever the case may be, wanted to fly down to see her – no questions asked. We said, "We will have you on the next plane. We'll take care of it." There may have been an army of aunts, uncles, and who knows, old boyfriends that went down to see her, I have forgotten the number. She survived, and that was the most important part. The last I heard, which was a few years ago, she's still working for NOAA. A few years later, she and her family were approached by an ambulance chaser, who said, "They could probably sue the government and get a lot of money." Both the father and the young lady's response was, "No, these folks saved my life. We're not going to sue anybody. It was a situation that was bad, [but] could have become even worse. I asked a lady, Dr. "Shark Lady," who was at the University of Maryland at the time, who knew as much about sharks as anybody – Eugenie Clark – and said, "Why did this happen?" We know that sharks follow ships for thousands of miles; as garbage is thrown over the side, on which the sharks feed. But in the annals of history, we had never heard of one attacking people in the

water swimming like that; none were under duress. She surmised that the starting and stopping of rescue boat had agitated the shark for some reason, and that's what caused it to attack.

MG: That's so frightening.

WS: Yes, it was. The young woman came through it okay. We, as an organization, came through it okay. The individual that did not come through it okay was the captain of the ship. He took personal responsibility for absolutely no reason. He did everything he was supposed to correctly, and once the accident happened, he responded most appropriately. He was exactly right. But he was his worst critic and took responsibility. Nobody else blamed him, but he blamed himself.

MG: Do you remember what year this was?

WS: Probably '92, '93. I had just taken over as the deputy director.

MG: Deputy director of NOAA Corps?

WS: Of the Corps and the Office of Ship and Aircraft Operation.

MG: What's now the Office of Marine and Aviation Operations [OMAO]?

WS: Exactly right, yeah. It used to just be NC, and that's what I knew it as – NOAA Corps. We've changed the name a couple or so times. You're exactly right. That's the organization.

MG: Then, in 1995, you became the director. Is that right?

WS: I did. Yes.

MG: How did your role change? I know those next few years were challenging.

WS: They were very challenging. Yes, they were probably as challenging as for anyone that had held that position because the challenges went from those of operational or economic to a survival challenge. All of us knew there was some move afoot within the administration. Ned Ostenso told me once that when you start hearing a lot of people talk about you, you know you're in trouble. There were enough rumor mills to signify potential trouble. When I was being considered for the job, I talked to the Administrator of NOAA and said, "Now, I have no intention of coming in an organization that I have to eliminate within just a couple or so years. I need some assurance that what we're hearing is just background noise." Well, he said, "No problem. I assure you that you will not have any problem." Well, within, I think, six weeks or so, after I had taken over as director, President [Bill] Clinton made this famous comment in the Rose Garden, "I have the Air Force. I have the Navy. I have the Coast Guard. I have the Army. Why do I need the NOAA Corps?" That view totally missed the boat about the value that we're contributing to the government. I think one of the reasons was that Al Gore was looking for political credit, knowing he was going to be running for President. For political purposes, his "Reinventing Government" was going to eliminate as many programs which he perceived as

waste and duplication as possible. There were seven or eight organizations targeted. All of them, by the way, were small. They did not have the support base that, say, the Navy had, or the Air Force, or NASA. We were all small, known for our achievements, and known that we were very professional, but we were not household names. The Bureau of Mines, for example. People knew [of] the Bureau of Mines, but they didn't know anything about it. So, we, and Bureau of Mines, and [Commissioned Corps of the US] Public Health Service, and several [others] were put on this list. By being on the list, we each had a couple of problems. One, to justify our contribution to the government. Probably equally important, we had to justify our cost. I made the assessment very early that a professional contribution was a quantitative argument. This was quickly becoming a political debate. Within a political debate qualification does afford sufficient cover unless there was a Congressman champion ready to go to mat. NOAA Corps had many political friends but no champion which would risk political capital for us. Thus, I reasoned that our best chance for survival was to develop a numerical quantitative argument. I looked at our cost. We were expensive. Most government agencies are expensive. Over the years, infrastructure tends to be protected over the operational aspects of a program. This is true with most organizations, both government and non-government. In our case, the shore-side costs had grown disproportionate to the ships themselves. If we had a few extra dollars, we would add to the shore-side, rather than putting the money into the ships. Everything had become disproportionate. I remember the advice that Adm Nygren had given me; "I will support you as long as you are efficient". I knew the first thing I had to do was to do some real streamlining on our cost. We needed to be able to make a compelling argument that we were not only the very best – I think we were the very best and many people accepted that – but we also had to be the least expensive. It was an effort on numerous people's part to make this happen. There is a cost comparison that the federal government uses called A-76. NOAA ships have done two or three of these in past decades, but none had come to completion. In Congress, we were being compared to the price of commercial fleet because the commercial fleet continually told Congress, "We can do the work. We can do the work a lot cheaper than [NOAA] can. Get rid of those ships. Get rid of those aircraft. Get rid of the NOAA Corps, and we'll do the work for you [for] much less, and we'll do just as good a job." Well, again, the performance is a hard thing on which to hang your hat. We had a long history of testimonials from our customers – the marine service, the hydrographic community, and the oceanographic community. All these folks had long attested to our professionalism. It was no trouble at all to pull together these letters of testimony. Many of the NOAA Corps officers and the retired community believed that this was enough, and our history of performance would eventually win out. But the commercial sector was making the same claim and the commercial side had lobbyist working on their behalf. Also, the commercial sector had well established associations with various members of Congress and in many cases had contributed to Congressional campaign funds. To neutralize their argument was a reason we needed to do an A-76. Both the quality and the price of service was compared. We had to prove that not only were we the best in service, but we were also the cheapest. With the A-76, we had to advertise first our cost, and then the private sector had to match our cost or be better. They had our number in front of them first, our numbers, which gave them an advantage. In spite of their talking, after all their threatening, claims that they can do so much better and cheaper, they knew, after looking at our cost, we were substantially less expensive than the private sector. We took a big bite of that apple. Now, I'm summing this up and in about three minutes. This was an effort that culminated over a three or four-year period. We had won the qualification argument. The only thing now facing us was the political argument. Once

something takes root in Congress or in the administration, it's awful hard to dislodge it. Of the other four or five agencies that were challenged like we were, only one survived. I mentioned the Public Health Service. The Public Health Service survived because of a couple of very influential senators saying we don't care how much more expensive they are, nobody can provide medical service to the penitentiaries or to the Native American community like the Public Health Service. The Public Health Service was taken off the table. But the others were all eliminated in short order, leaving just us. But we had the political problem. When the President says something, folks are encumbered. We're seeing this a little bit in today's environment. The offices and agencies in the administration have to stand up and support what was said. That was true with the military, other agencies, and other parts of NOAA, at least publicly. But in many ways, we got a tremendous amount of support from these groups, they could not be public about it, but they could use surrogates, and they worked with us in many ways. The administrator of NOAA, who, in several folks' minds, was painted with a black brush at this stage, feeling that he was a contributor to what had happened – was a very close friend of Al Gore. He probably knew what was going to happen sooner than some of us had. But the Administrator of NOAA inferred – never verbalized or written, but understood – that as long as I was not public in what I was doing, I could pursue avenues for survival. I honored this, and he honored it as well. I never publicly stated that the administration was wrong. I couldn't do that, not with my position. But I could use surrogates, and I used surrogates such as the Military Officers Association of America (at that time it was called The Retired Officers Association or TROA), the Reserve Officers Association, the retired community, the spouse community. These folks were tremendously effective in helping us in getting the message across to Congress and to the Administration. We were able to keep the fight going on a host of fronts. But we were still having some trouble getting through to Congress, even though a lot of our friends on the Hill agreed with us. The resistance to the NOAA Corps' survival came primarily from the House Resources Committee, chaired by Representative Don Young from Alaska, who had taken the position early when he bought into what the administration was saying, and he was not about to change his mind. It's funny how things happen. Bonnie and I were commuting to what is now our main home. At that time, it was a recreational house in West Virginia. We were going back to DC late one Sunday night, and I was filling up with gas in one of the local towns. I was talking to Bonnie through the window, and I heard this voice from the other side of the gas pump. It said, "That sounds like Bill Stubblefield." I looked around, and there was a retired NOAA Corps colleague. Through our conversation, he said, "I have a next-door neighbor who knows Representative Don Young, the Alaskan representative. Knows him well. He's a close personal friend." I said, "Let's talk." We went and talked to his friend. The guy said, "Sure, sure. I know him." Within a couple of days, [he] walked in Representative's office without an appointment, and said, "Don, you've got to take care of this NOAA Corps." Just a friendship made this reversal very quickly. This action, coupled with what the wives were doing, or the spouses were doing, what the retired community was doing, what the military was doing for us, the professional agencies were doing for us – all of these groups started pulling together. We now had the political nut cracked, as well. Within just a couple or so days, based upon the economics, based upon our professionalism, based on the effective lobbying from several groups, we got this letter from Congress to the Department of Commerce, saying in effect: "What in the blazes are you doing?" Things reversed very quickly. We found out later that toward the end, something like seventy percent of all the letters and phone calls going into Vice President Gore's office were in support of retaining the NOAA Corps. Now, when you consider

that we were a small organization, not very well known, and on the surface easy pickings – all of which I think, the reason we were identified for elimination – to shift this over to where seventy-five percent of the letters from all across the country, from all the various populations within the country [were] in support of NOAA Corps, is pretty impressive.

MG: I agree. I have a couple of follow-up questions. Can you say who the administrator of NOAA was at this time?

WS: Yes, Jim Baker. I hope I cast Jim in a favorable light because I have a lot of regard for Jim. We still keep in touch. Jim was in a very tough position. He was a very close friend of Al Gore. I think Jim did what he had to do. But he also did something he did not have to do. He had to keep up the administrative face but he did not have to let me fight the battle using what resources I could. He could have put the squeeze on me, and I would have been forced to be less aggressive in finding surrogates.

MG: NOAA Corps was saved, but were there any changes implemented or any downsizing?

WS: Yes. During this time, we were fighting various subplots within NOAA. One, as I said, we had to reduce our cost, the aircraft cost, the ship cost, and our personnel cost. We made some major changes there. Instead of having two marine centers, we integrated them into a single marine center. Instead of having an admiral for the aircraft, an admiral for the Pacific, [and] an admiral for the Atlantic, we reduced it to one admiral that worked as my deputy that had responsibility for all of those. The action which hurt the most was the size of the Corps. We were Congressionally mandated to reduce the number of officers. We were never large. We were about four-hundred-and-fifty when we started this, and this number was reduced significantly when we were unable to recruit new officers. We got down to, I think, around two-hundred-and-fifteen, maybe two-hundred-and-thirty, something like that until we were able to get permission to start hiring again. We took a real lick. I've heard through the grapevine that I was criticized by some [for] reducing more than we had to. I didn't have any choice. The staffing levels were federally established. As a group we were literally taking the approach [of] fighting for tomorrow and thinking that we would probably come through this. But it was extremely painful and not as bad on more senior officers that were eligible for retirement as it was [for the] younger folks. More than once, I made the statement, "I'm not doing this for the commanders and the captains or the admirals. I'm doing it for the ensigns and the JGs [junior grades] and the lieutenants. The one time I became angry was when a senior officer remarked, "Well, let's take the concessions being offered for those of retirement age, and then just back off." I said, "That's not acceptable. We will not take any sort of agreement that's going to penalize the younger officers and their families, they are our future. If we older folks suffer, so be it. But the younger folks will not suffer."

It is most appropriate at this time to pay tribute to the officers and their families. The uncertainty of the Corps' future and in turn the officer's future was intense. And this uncertainty lasted for over three years. We had a few officers resign because of this, and I never faulted them for doing so. Many more, however, chose to stick with us, doing their job every day, never complaining. It is to them and their families, we owe so much. Another group which much is owed were the officers and crew on our ships and aircraft. We were exceptionally venerable during this period. One major mistake would have tilted the dynamics in such a way that we

could not recovered. Operating ship and aircraft, by nature poses risks, especially in the environment the NOAA vehicles work flying into hurricanes, surveying shallow waters, launching oceanographic monitoring equipment in rough seas, operating in severe weather, and the list goes on. And through the years the NOAA ships and aircraft have experienced accidents, fortunately very little loss of life or equipment. During this most critical time, all operations were carried out faultlessly, the work was done with no noticeable mishaps. Much credit goes to the women and men on our operational frontline. Thanks to them all.

MG: Also, during this time was the TWA Flight 800 crash. While tragic and devastating, it was an opportunity to show the value of the NOAA Corps because they were instrumental in the recovery.

WS: Very much so. We took full advantage of that as much as we could. Sam DeBow was Captain of the *Rude*. Sam literally departed at two or three o'clock in the morning and was the very first ship on scene. There was no one to be rescued, but the *Rude* did some initial survey work and was an integral part of the search operation to find the debris. Sam had some pretty sophisticated sounding equipment. The *Rude* under Sam DeBow and Shep Smith and others, were really the first on the scene. Internally, the Navy and the Coast Guard were exceptionally appreciative, but that's really as far as it went because they were not about to shift the public spotlight from their own work to NOAA. Except for acknowledging the fact that NOAA was first on the scene and helped them all the way through, they still took most of the credit. I'm sure the administration and Congress became aware [of] the role of NOAA played. We certainly encouraged that as much as we could; we even met with senior leadership of the National Transportation Safety Board (NTSB) to ensure they were aware of NOAA's contributions, which they were.

MG: In terms of saving the NOAA Corps and your efforts there, you were eventually recognized for this work. I think you received a medal. I read a statement from John Kerry that really summarized and highlighted your accomplishments.

WS: Yeah, two things: I take exception when I am credited with saving the NOAA Corps because it was truly a group activity with many people actively involved. The spouses and the retired community worked tirelessly as did many of our sister organizations. Of the first two, I am not going to identify individuals in that so many were involved and played such a critical role. I will make three exceptions, however. Cheryl Glang, Head of the Wives (now Family) Association, RADM Chris Andreasen, Director of the National Hydrographic Office in Monaco and RADM Harley Nygren who headed up the effort of the retired community. Of the latter, Captain Fred Becker of the Reserved Officer Association was instrumental in raising our visibility on the Hill and within the military community. I did not get any recognition, nor should I, from NOAA itself, because we were fighting against the administration of which NOAA is part. Some of the professional organizations, the Reserve Officers Association and what was then The Retired Officers Association, now the Military [Officers] Association of America, were very kind and saying nice things to me. You're right. Senator John Kerry read in the Congressional Record on the eve of my retirement some words that I very much appreciate.

MG: I read the whole statement. It must have been such an honor to those things out loud.

WS: Yes, it was, especially from a senator on the congressional floor. But you have to remember how these things are done. They're read to an empty forum. Nobody is there except the senator giving the speech. But it still appears in the Congressional Record. So yes, it was much appreciated.

MG: Yes, I found it online, so it exists for posterity. I actually wanted to go through some of the things he talked about in that statement and see if you had things to add. Before I do that, do you need a break or anything?

WS: No, no. I'm fine.

MG: Kerry talked about how you re-engineered the office to become more cost-efficient.

WS: Yes.

MG: You decommissioned five older ships. I wasn't sure which ones those were.

WS: *Surveyor* was one. The *Mount Mitchell.* Let's see. It could have been the *Discoverer*, I think. *Davidson*, I believe, was the fourth one. It could have been the *Heck*. I'm not sure. I have forgotten.

MG: You commissioned and built a new oceanographic ship, the *Ronald Brown*. Can you say first what happened to Ronald Brown?

WS: The individual or the ship?

MG: Both.

WS: Ron Brown was head of the Department of Commerce; which NOAA is an integral part. Can I divert and tell you why NOAA is part of Commerce?

MG: Of course.

WS: NOAA, on the surface, is not well-fitted to be part of Commerce. When NOAA was being formed, it had been the Environmental Science Services Administration, ESSA. [Richard] Nixon was in the White House. ESSA was slated to go into the Department of the Interior where it would have been a partnering agency to the U.S. Geological Survey, Bureau of Mines, Bureau of Land Management, etc. But Nixon was mad at the head of the Department of Interior, Walter Hickel. Nixon's friend, Maurice Stans, was head of the Department of Commerce. Without any prompting, without any other background, he wrote a note on the order of, "Instead of Interior, it's going to the Department of Commerce." This story was confirmed several years ago when a colleague of my wife Bonnie, sent Hickel a letter asking if the story was true. In the margin of the letter, Hickel wrote: That is how I remember". So that's why NOAA ends up in Commerce. Even though on the surface it is not a perfect fit, there are advantages, and I think both have benefited from it. Now, you asked me a question. Can you repeat your question?

MG: I asked about Ron Brown.

WS: Yes. Ron Brown was head of the Department of Commerce. Ron was, I thought, very effective [at the] Department of Commerce, had a real appreciation for science, had an appreciation for what NOAA was doing – climate, satellites, ships, the whole bit. I always considered him to be well-versed in matters of NOAA. His deputy was equally well-versed. And they both treated NOAA very fairly. Well, while Secretary Brown was on a trade mission to Croatia, and when coming in for a landing, and the plane did not clear a mountain range. Everyone on board died. Naming a ship for him was something that NOAA might have done because our director was killed. NOAA had done this earlier when Malcolm Baldrige was killed in a rodeo – he was also Secretary of Commerce. I did not really know Baldrige. I don't know how well-justified that naming was. But in Brown's case, not only was he a Secretary of Commerce, killed while on duty, he was also a good friend. He was a good friend of science and a good friend of the operation. In my way of thinking, it was a no brainer to name the ship after Ron Brown.

MG: Something else Kerry mentioned was the new Gulfstream that helped study the effects of El Niño.

WS: Exactly, yes. Well, more than El Niño. It did do some work on El Niño, but mostly for hurricanes. It identifies the steering currents for the typhoons in the Pacific, but mostly the hurricanes in the Atlantic. The normal way of looking at hurricanes, besides the satellites and the long-range radar, is to fly through the hurricanes with P-3s and drop sonobuoys, that will give a measure of temperature, the wind currents, the wind shear, and the like providing a lot of exceptionally valuable information – the intensity, of the winds, how tight the eye is, and the like. What the P-3s do not provide, though, is a good sense of where the hurricane is likely to go. That has to be done through aircraft, looking at steering currents. That's what the Gulfstream does; it would fly in advance of the hurricane, monitoring at high altitude the air currents, and humidity, and the like. The Hurricane Center can integrate all of this information and give a very good sense of where the hurricane is going. The modelers use this information as they predict a hurricane. You've seen this spaghetti shape of tracks on television. They're using this database, and much of the data comes from either the satellites, hurricane aircraft, the Hurricane Center, or the Air Force C-130s, which also support the hurricane tracking forecast. What's interesting with this spaghetti base, is that all the modelers work together; none of them work in isolation. They compare, after the fact, how good the various models are. There are several major models. One is the Navy model out of Monterey. A second one is the NOAA model out of Princeton, the GFDL, Geophysical Fluid Dynamics Laboratory. The third one that we frequently hear about is the French/English model out of England. And there are others. There's a whole bunch of models, but they're all using the information provided by the aircraft and satellite. If one makes a breakthrough, if one model does a better job of forecasting the event, the others go back and integrate the variable of the one with better success and discard the variables that they were wrong. The result of which is, thanks to the operational capability of NOAA, both the Hurricane Center and the aircraft, and the Air Force, and the skill of the modelers, we have a vastly improved forecast of hurricanes these days.

MG: Yes, I was able to interview Dr. James McFadden, chief of programs for the NOAA Aircraft Operations Center in January. He recently passed away, but it was interesting to hear about his experience with the NOAA Hurricane Hunters.

WS: I did not know Jim had passed away.

MG: The other thing John Kerry mentioned in his statement was the efforts of the NOAA Corps during Operation Desert Storm. I didn't know if you could speak to that a little bit.

WS: Yes. We were asked to send a ship, the *Mount Mitchell*, over to the Persian Gulf. The captain at the time was Richard Parmenter, who had been an ex-marine prior to coming into NOAA. Rich and his crew were able to provide very critical hydrographic and oceanographic information that was then provided to the Department of Defense. How the Department of Defense used this information, I don't know. But I know that the *Mount Mitchell's* work was well-received because we received several letters of appreciation.

MG: Okay.

WS: Let me go back to the hurricanes. Now you're going to hear a story that is not well-known, [laughter] and I did not know about it until later. When you fly into a hurricane, for safety purposes, you need to make the initial penetration at a relatively high altitude. The C-130s generally have a ten-thousand-foot minimum limit. The NOAA aircraft, feeling you get more science, have historically penetrated at a lower altitude, maybe two or three-thousand feet as opposed to ten-thousand feet. During Hurricane Hugo, several years ago, which was a category five, three aircraft went out, two NOAA and one Air Force. The NOAA aircraft, the first one, went in way too low, did not have all of the information they should have had, survived the penetration of the eyewall, but just barely – lost three of the four engines, lost all their radar capability, lost most of their communication capability, lost all their equipment from the bulkheads. The result was that they were inside the eyewall without a good way to get out. The other NOAA aircraft had come in higher, so penetrated with significantly less damage and was able to work with the first aircraft until they got their engines back online while they were flying around and around within the eye wall. The second NOAA aircraft led the first one out with radar, avoiding the more intense areas. A lesson learned. We put it in standard practice that unless you know the hurricane exceptionally well, the initial entry is high. If you want to drop down after that, fine. Again, this happened before I had responsibility, but I wanted to ensure that our planes were safe. NOAA has never lost an aircraft, and between the hurricanes and the severe storms in the mid-west, this speaks exceptionally well of the highly qualified and dedicated pilots and crew. We did not want to lose an aircraft in the middle of a hurricane.

MG: No, that sounds scary.

WS: That was scary. Talking to the pilots, they said, "You can tell the story a dozen times, but it will never be as scary as what it actually was." It was a pretty frightening situation.

MG: Is there anything else we're missing up to this point when you retired from this position?

WS: Yes, right after we won the battle for survival. We served as Admirals for four years' tours, and my four years were coming up. It was also very apparent that my effectiveness was weakened. You do not fight as intense a battle as what we fought and then expect as soon as you're declared the victor that everybody shakes hands and forgets about it. The officer following me needed to start out with a fresh leaf. Evelyn Fields was the officer selected and was a perfect choice. Evelyn was the first Black lady to assume command of any government ship. She had a phenomenal career throughout. She was a perfect choice because she knew both the situation and the players.

One other thing I'd like to say, and I've alluded to this, but our struggles and our successful victory rested most heavily – the struggles and the credit rest most heavily, I think, upon the families of those officers involved. The spouses [were] mostly women, but there were a few men as well. The spouses did unrelenting letter writing, visitation, testimony in front of the Hill. Cheryl Glang was one of the wives, and she was in charge of the, I think, Wives Club, as it was known at that time. Cheryl fought like an absolute tiger all the time. They had the most to lose, and they were exceptionally effective in the way they helped us wage war. As I said earlier, I thought it was a combination of things. We could not ignore the arguments for our professional service, our costs and the political factor. We could not ignore the help from the other federal organizations that could speak out, the retired organization that very much could speak out. We had folks, Chris Andreasen, for example, that flew all the way in from Monaco to testify and to speak on the record. A lot of people fought this battle, a successful battle, but the bulk of the credit goes to the families of the officers and the retired community as exemplified by RADM Harley Nygren.

MG: Can you think of an example or a story of a family member?

WS: I mentioned Cheryl Glang as one above. Her husband just recently retired as an admiral in charge of hydrography. Cheryl carried the flag as much as anybody else. The other one that deserves comparable credit is Harley Nygren. I don't know if Harley testified or not. I know Cheryl did. But Harley was instrumental in getting the retired community in lockstep. I think the Reserve Officers Association representative, Fred Becker, retired Navy – Fred was in charge of outreach for the Reserve Officers Association. Shortly after he retired from JAG [Judge Advocate General], the judicial side of the Navy, he joined ROA, Reserve Officers Association. Fred saw a need, and a bull-dog label could not have been more appropriate. Fred worked tirelessly on our behalf and not alone. Again, with the spouses, the wives, the other organizations. Fred got the reserve officers really pulling together, as did Mike Nelson with The Retired Officers Association, which is a much larger organization. So yes, those specific names.

MG: Before we talk about your retirement and life in West Virginia, I just was curious if you could talk about some of the trips you took. I have a list of some of the places you've traveled to – China, Peru, Mongolia, Russia, and Vietnam.

WS: I think I mentioned very early the reason I went into the Navy. It was for adventure. I look for adventure. I made three or four trips to China and one trip to Mongolia, which has to be one of the most memorable trips of my life. I enjoy the cultural differences. In Mongolia, I was one of the senior members of our delegation. Our hosts would toast us frequently. One of the toasts was fermented mare's milk. I am not particularly fond of milk and I had never had mare's milk.

I certainly did not like fermented mare's milk. We were in this small village, and the mayor wanted to toast us. I was given the first glass, and it was horrible. It smelled horrible. I took one sip and said, "This is going to be sheer agony." The only solution was to chug-a-lug it down, drink it down as fast as possible. The mayor said, "Oh, you must really have enjoyed it." He filled up my glass again. I had to go through the same thing again. That was bad enough. But the worst meal while in Mongolia was – we flew into southern Lake Baikal, which is the northern part of Mongolia, and got there late in the evening. We were all tired, got up way too early the next morning, and found the hygiene in this place non-existent. We were set down to breakfast. The breakfast consisted of curdled cheese and a green liquid of some sort. It was a very heavy green gravy sort of liquid. No hygiene and seeing these two choices in front of you was really more than you could take. None of us wanted to eat. But our Mongolian host insisted that we would. They would grab a piece of this curdled cheese, dip it in this green liquid, and every time we opened our mouth to say something, they would stick it in our mouth with their chopsticks. In short order we decided if we're going to have to eat this stuff, we might as well use our own chopsticks. It was probably the most memorable meal of my life. Another memory of Mongolia was the reminder that the country is literally out of the days of Genghis Khan. When they became part of the Russian Federation in the early 20th century, the country was divided into something like eight or nine different sectors. Each sector could only celebrate once a year, and never on the same date. We happened to be in one of these sectors when they had the annual celebration. Everybody was in native costume. They only did three things – wrestling, shooting the bow and arrow – and they were marvelous marksmen – and horseback riding. Of course, Mongolians are known for Genghis Khan and horseback riding. [Editor's Note: It is rumored that Genghis Khan died from injuries sustained from falling off of his horse during battle or while hunting.] In their races, they would ride something like twenty miles, and they would have kids as young as four or five riding this distance. Toward the end of twenty miles, you see them coming toward the finish line, with an adult riding between two children, holding up a child with each hand, steering all of their horses with just his knees. Wherever his horse went, the other horses went as well. The horsemanship was quite spectacular.

One of the continual concerns on the trip was our health since we were well outside of health services we were used to receiving. We were all careful not to get dysentery. The last day, we went to a picnic on the hill, and our lunch were cucumber sandwiches, which later resulted in several of us getting dysentery. Coming down off the hill, there was a group of elementary school children with no way home. We invited them to ride with us down the mountain. Going around these sharp curves coming down off the hill/mountain, we were all singing songs of our youth – "She'll Be Coming Around the Mountain" and the like. The same tune – everybody knows the song – different words. We were all singing at the top of the voice, including the driver. It's fortunate we did not go over the road, but he was having such a grand time. We all had a great time until dysentery hit us the next day, and it was pretty brutal. Did I tell you? I don't think I did. The story about my train trip in China?

MG: No, I don't think so.

WS: My colleague, Charlie Kearse, who I have referred to a couple or so times, and I were giving lectures on how to manage or operate oceanographic fleets. We had been invited by the Chinese government. I had been there a couple or so times before giving these lectures, only to find out later that it meant absolutely nothing to them. Their culture was that once you're hired,

the employee stayed hired for life. It's to their advantage to have a labor-intensive operation. Whereas, in the States, we want to minimize labor costs and do everything mechanically. They want to do just the opposite. Anyway, after a couple or so trips, I said, "I want to take a train ride." They were very hesitant. I finally said, "I'm not coming back unless you can get me on a train." They finally agreed and we took a train from Beijing to Tsingtao, which is on the coast and at one time, had been the major beer brewery for Germany prior to the First World War. Their Tsingtao beer is internationally known, recognized, and appreciated, especially by me. Anyway, our monitor, our guide, our interpreter, our spy – whatever you want to call the individual that made sure we stayed in line – Charlie and I walked in the sleeper car for the overnight trip. Inside was this small Chinese gentleman. He took one look at two Americans; he was not a happy camper. He turned his chair to the wall and refused to look at us. Through the interpreter, we tried to engage him. No way. He was not going to have anything to do with us at all. My wife had always studied what I should do on a trip. I'm going to tell a short side story– going to Mongolia earlier, she had read that Mongolia was temperature-wise the coldest capital in the world. That's during the winter. She did not consider the summer as she packed me all woolens. In Mongolia the summer temperature was over a hundred degrees, and I ended up wearing my traveling clothes for two weeks, all my other clothes, intended for Mongolia, remained in the suitcase being too hot to wear. Anyway, in China, she had read that when on a train, do not eat the food. Hygiene is poor. She had packed a bunch of peanut butter crackers, and that was going to be our meal on the train. The train frequently stopped at villages and town. At one of these stops, Charlie got out and came back with several liters of Tsingtao beer. The crackers and beer were going to be our dinner for the day. We had the Tsingtao beer and the crackers, and we offered one of the crackers to this little Chinese gent. He immediately spun around. The floodgates had been opened. We couldn't get him to shut up. He was just talking, talking, talking. He excused himself in a few minutes and came back later and, through the interpreter, said he would like us to be his guests at dinner that night. Again, we'd been told not to eat on the train, but you don't say no. So, "Fine." We walked in the dining car. He did not have a table reserved for us. He had the whole damn car reserved for us. It was a meal like you wouldn't believe – lobster, steak, shrimp. It was a spectacular meal and a lot of Tsingtao beer. When we got to Tsingtao – in China, you rarely go to a Chinese home. Guests are always taken to restaurants. Well, he insisted we go to his home. A little piece of cracker broke all the floodgates open.

Earlier we spoke about health concerns in China and Mongolia. Dysentery was always a concern and we always took great precaution. Except for the incident on the mountain in Mongolia, we were successful. On one of the trips, I picked up a cold that continued to linger. All of the home remedies which I had with me were not working. Our Chinese host suggested visiting a Chinese doctor which I did. The doctor prescribed what turned out to be pure codeine. It worked, the cold disappeared but at a price. That night, I had the most vivid hallucinations. I visualized thousands of Chinese surrounding me, getting ever closer. I was having trouble breathing. My companion, Charlie Kearse, appeared in my dreams and saved me. He was on the foot of my bed with a baseball bat dispersing the multitude of Chinese. The next morning at breakfast, free of both the cold and the hallucinations, Charlie was taken aback in how warmly I greeted him.

MG: [laughter] Well, are there any other stories or reflections about your NOAA career or NOAA as an agency before we talk about life after NOAA?

WS: I told you about the visit with the President of Peru.

MG: Yes.

WS: No, there's a lot of stories, but let's say enough is enough.

MG: Well, we can always record an addendum. Do you mind if we take a two or three-minute break? We can pick up with your life in West Virginia and how you're coping with the COVID-19 pandemic.

WS: That would be fine.

MG: Okay. I will pause this and be back in three or four minutes.

WS: Okay, good.

[Tape paused.]

MG: I wanted to ask how settled in this part of West Virginia and how our lives have unfolded there. I also want to ask about the Bonnie and Bill Stubblefield Institute for Civil Political Communications, which you helped found.

WS: Before I answer your questions, I am reminded that much earlier in our interview, when we were discussing Vietnam, I said that I had a couple of stories of Vietnam which I would like to share. As you remember, I had volunteered for, but never served in Vietnam proper. But like everyone else, from the news and stories coming out of the war, I had an opinion of the Vietnamese, and it was not good. In the mid-1990s, I was asked by Rollie Schmitten to join his trade delegation to Vietnam. Rollie was the Director of NOAA's National Marine Fisheries Service. He wanted to see if there was an opportunity for trade between our two countries. As I remember, we were one of the first delegations of this nature to Vietnam after the War, and admittedly there was nervousness on the part of several members of our delegation, especially those who had served in Vietnam. Probably the most nervous were two Vietnamese who had fled the country during the early stages of the War. In the States they had become successful businessmen and had consistently sent money back to Vietnam for schools, hospitals, and similar infrastructure. But they were unsure of their reception and would they be allowed to leave the country once they had entered. In total some nervous people.

We arrived in Hanoi, the image of the worse of Vietnam, late one afternoon. We had flown from Thailand and were both tired and nervous. Prior to leaving the States, my secretary had suggested attending a water puppet show which is only to be seen in Hanoi. Even though we were tired, I convinced everyone to join me. Our hotel was on the outskirts of Hanoi and the cab ride was fairly long. As we were exiting the cab, we understood the fare to be over forty dollars, cheap by Washington D.C. standards but more expensive than we had anticipated. We paid and the driver begin making various hand signals, he could not speak English. Our reaction was that he was asking for more money. In hindsight, I suspect that we were somewhat hurried, being from Washington D.C and tired. We proceeded to brush past him and went to the water puppet

show. What a magnificent performance. Upon arriving back to our hotel, we were met by the hotel's concierge. He informed us that the cab fare had been less than three dollars; the cab driver had been trying to tell us we had paid too much. The driver drove all the way back across town and returned all of the money. He had not even kept the amount owed to him. This was the first glimpse that our image of the Vietnamese was wrong, and they are a very gracious people.

The second revision to our image was meeting with the U.S. Ambassador, Pete Peterson, who had been a prisoner of war in Hanoi. He and his wife, who was a Vietnamese ex patriot, having escaped to Australia at the outbreak of the war, were very convincing of the good nature of the Vietnam people. On our trip, I had decided not to wear my uniform. This decision was after consultation with both the State Department and the Defense Department. They provide no conclusive advice, but I chose to err on the conservative side not wishing to offend. The military representatives on the Vietnamese delegation knew that I was an Admiral and asked why I was not in uniform. I responded truthfully that I did not wish to offend. Their reply was that Vietnam had fought four or five wars since the U.S. and they considered the U.S. to be a friend and not an enemy. As a note, the Vietnamese have never fought a war as an invader, only as a defender.

To finish this story, we found that the fish processing plants were state of the art, exceptionally clean and efficient. I believe that much of the catfish sold on the west coast of America is from Vietnam. The most important aspect of the trip, for me, was seeing the Vietnamese in a different light. This very favorable impression was reinforced when Bonnie and I visited the country five or six years ago as tourists.

Going back to your question. West Virginia was an interesting progression. As I mentioned to you, one of the few periods of frustration in NOAA was when I was chief scientist for the Undersea Research Program. My wife knew I envisioned myself as a farmer. She found this 65-acre property in West Virginia on the Potomac river, and thought that we could make a farm out of it. We have not. It's very wooded and cleaning the trees would have been too much work. Now we are glad we did not. It's just a wooded paradise, which we enjoy immensely. For the first ten to twelve years, we used the property as only recreational, we'd drive up from DC for the weekends. The first six or seven years, this is where I wanted to retire. No question about it. It had the rural connection, the rural aesthetics. My wife, though, felt it was going to be too isolated, and she had no intention of moving here. This kind of low-level discussion went on for several years. One year at Christmas after visiting my family in Tennessee we pulled into a gas station in the southern part of the county. There were several folks there. Now, I come from an area that's known as redneck territory, but I had never in my life seen anything like this group of individuals in West Virginia. I got back in the car and said, "Bonnie, forget about it. We're not going to live here. We're going to sell the property as soon as we can and get the heck out of here. I'm not going to live with these folks." By that time, Bonnie had made a conversion, and she wanted to stay in West Virginia. For the next four or five years, it was her task to convince me that all the people are not that redneck, which she did. When I retired – and I retired about three or four years before Bonnie – we moved up here. I don't think I've ever lived anywhere that has been as welcoming and as lovely as are the people here. It is a combination of professionals and folks that have been here their whole life, who may or may not be professionals, but a lot of them were farmers or shop operators. From day one, they basically said, "We welcome you. We don't view you as a stranger. We're looking for folks to participate and get engaged. So, come on and do just that." That has been the mantra of every person

we've met. Now, it's funny. Just down the road, halfway between Martinsburg, where we call home, is Shepherdstown, where the university is. Shepherdstown is just the opposite. Shepherdstown, if you have not lived there for four generations, we'll be polite to you, but you're not going to be integrated into society. Thus, we came into Martinsburg. Bonnie and I, very early – me more so because Bonnie was still working at the US Geological Survey at the time – got involved in the community, member of the Rotary, and member of various civic organizations. I got on the political side of things, and I got to know very well the local elected officials, the state senators, state delegates, the county commission, and even the Governor. It was a natural thing when the opportunity for county commissioner came up that I was asked, and I was willing, to run. What made it a little different was that I was running on a zoning platform. This area is still rural enough that zoning is feared. Some others had tried to run on zoning before and were defeated. I was elected. I was elected by a sizable margin. It's of some interest, though, that once I was elected, my ideas of zoning became a non-starter. We did not get zoning through even though we tried. A county commissioner in West Virginia basically runs the county, and they control the purse strings. We have an elected sheriff and an elected prosecuting attorney, and they have their own departments, own fiefdoms, but we handled the purse strings and are very much engaged in every aspect of the county. Much fun. I decided fairly early that I would not run for reelection. I'm not sure just why, other than I made it a full-time job. County commissions in a lot of states, and in West Virginia, are viewed as a part-time job. You're paid a part-time job salary. But I was working at least eight hours a day, five days a week, frequently on the weekends. I was tired. I determined very early that I would not run for reelection. I think we got a lot of things accomplished that I'm proud of. The one which I'm proudest was the integration of paid firefighters into our Volunteer Fire Stations. Even though we are in a rapidly growing rural county, like in most rural areas, there is hesitancy to change. There is pressure from folks moving into the area to expect more and more services, but they don't want to pay for it. They're happy to get away from other areas with a lot of services but with a low tax base. They wanted to have both, one of which was manifested in our fire service. We had five volunteer fire departments. Volunteer fire departments, as in most rural areas, are more than just fighting fires. They are a cultural institution. That's where people go for their bingo, for their picnics, and the like. Each fire station was a little community in its own right. Each station recognized that with the demands of the population growth, they were not satisfying the needs as much as they should. But to them, it was a non-starter to get relief with the integration of paid firefighters. They were going to fight that suggestion tooth and nail. I spent the better part of three years, cultivating the various chiefs. One, they did not trust the county commission, and they did not trust any elected official. We started off with casual lunches and casual dinners, and over the years, developed some trust. In time we able to integrate within each volunteer fire department some paid staff. The paid staff were part-time. But in time, they became full-time paid staff within the volunteer fire departments. The Volunteer Stations were able to keep their individual cultures, individual management, but we would augment it with paid staff. I was touched by an incident when I left office. At retirements nice words are said. That's standard and expected. You always have nice words when somebody's leaving. Fewer nice words when you're actually doing your job, but always nice words when you leave. There were several people that came up and said some kind things. But the ones that I could not handle were the Volunteer Chiefs. They gave me a plaque from all five of the fire stations – the only time such recognition has been given to anybody – in recognition and appreciation of integrating the paid staff. Well, I went from being stoic, not doing anything, to just absolutely unable to talk. It

captured in so many ways what I'd hoped to do. We'd changed the culture. We made the county safer, and it's been a real satisfaction to watch how this kernel has grown into the very cooperative organization it is and everybody working together. We're the only one in the state that has done this, absolutely the only one that's done it. We are now a model for the rest of the state to follow, and it's worked well. Another thing that I've taken some pride in – and I can take pride because the folks that followed me have made it even better than when I left it – was litter. We have a beautiful county with one blight, and that's roadside litter. It's a tough nut to crack, and we've tried it in several different ways. One being an organization I founded shortly after moving to the County and its still working. Berkeley Community Pride tries to address litter through pickup, education, and awareness. The current county commissioners have taken that thought and have recently instituted a county-wide pickup. The county-wide pickup is, again, the first of its kind in the state using county resources, and it's working extremely well. But the County's effort, while achieving short-term goals with the roads remaining clean for a few days, do not address cultural change. Bonnie and I made a significant donation a few years ago to a local foundation for anti-litter. Money is just now becoming available from the dividends not the principal. So, funding is in perpetuity. The money will fund a different approach to roadside litter. Rather than picking up a road three to four times a year as many programs do, we will designate pick-up twice a month on a few roads. The intent is to change the culture. This idea is based a couple of observations. Years ago, when Washington, DC, was putting in their subway system, they did not want to have a repeat of Boston or New York. They did two things. One, they had a moat between the walls and where the people stand, so it's difficult to draw graffiti on the walls. The second thing is they employed an army of folks in white uniforms. Every time trash was thrown down, they'd be there to pick it up. Gradually over time, several months, they reduced the number of folks in white uniforms, but the mindset had been made, and for several years the Washington Metro was noteworthy for its cleanness. There's still another example. Our property is out in the country and borders a long stretch of the road. In one place, there are no houses and there's a dip. For a short period of time, the cars are invisible to other cars on the road. This resulted in the trash heap of all trash heaps. Bonnie and I started picking up alongside the road on a daily basis. Every time there was trash, we would pick it up. Now today, trash is rare. We'll go for several weeks before any trash is thrown alongside our road. Taking these two models, the subway model and what we experienced, it is our belief that if we pick up a road on a regular basis, we will change the mindset. The Adopt-a-Highway Program and the County's efforts are good programs, but they pick up maybe two or three times a year. You're making it clean, but you're not changing the mindset. Our donation was designed for the mindset change, but it's not yet been implemented. I think it's going to be implemented next summer, next spring. We'll work with the schools. We will have maybe, on an annual basis in perpetuity, twenty-five, thirty-thousand dollars given to the school, with the kids going out twice a month, picking up one section of the road. I would like to believe that it will make a change, along with what the county and other folks are doing. The other thing that we're quite proud of is we funded an institute at a local university. Bonnie had made a significant contribution to one of her alma maters. The schools I went to were large and are well-endowed. What little we could contribute was going to be insignificant to make a difference in the large schools. The local university – a little bit different. A good friend of ours has been in politics all his life. He ran John McCain's first campaign, ran [Mike] Pence's early campaign, ran my campaign when I was running for county commissioner and is a local radio host. A good friend of his is from our area but now lives in DC. He has made it big time in

politics, mostly Republican politics. He heads GOPAC [Republican (GOP) Political Action Committee] program. Between the two they had an idea to develop a greater political civility awareness in the university, the students, and the families associated with the university. They realized that this effort had to be balanced. It cannot be viewed as partisan. We've gotten to the point that on the political front, we now only scream at each other. We need to tone it down. As they were beginning the thought process of fleshing out how to best implement such a program on political civility, they asked Bonnie and I to come in and be used as a sounding board. The four of us fleshed out what we thought might work. The GOPAC Director is also on the Board of Governors for Shepherd University. He carried the concept to the President of the university and said, "This is something we think will work." The President, Dr. Mary Henricks said, "Hey, great idea. But like everything else, how do you fund it?" Without any pressure at all from Shepherd University, without any real discussion, Bonnie and I also thought the idea had both promise and could make an impact, and since we were looking for someplace to make a contribution, we decided to help. We decided to commit enough to money to fund the institute for three years. The Institute has several focuses. One is what we call the American Conversation Series. We have some well-recognized individuals such as Donna Brazile and President [Donald] Trump's first communication director, [Mercedes] Schlapp. We've had a healthcare discussion, looking at it from all facets – the government single payer funding, free market, and Obamacare. We've had a couple of members of the U.S. House of Representative discussing, "How can we fix government and civility within the House of Representatives?" One of the participants in our discussion had a reputation in Congress of working to find agreements with the other side of the political aisle. Unfortunately, he decided not to run for reelection. The lady that took his place is part of the QAnon group. [Editor's Note: RADM Stubblefield is referring to Marjorie Taylor Greene, Congresswoman-elect to Georgia's 14th Congressional District.] She's the one that's gotten a lot of publicity. We've gone from one fellow that sees moderation and cooperation as a solution to our political divide to a person who ran on a platform of no-cooperation and who is not expected to reach out at all. Anyway, the two members participated in an hour and a half discussion of how we can improve civility within Congress. Most recently, we've had three members of the press [who are] well-known: Ray Suarez of National Public Radio, Amy Walter, who is with the Cook [Political Report], and Susan Glasser, whose writes for [*The New Yorker*]. For an hour and a half, they presented their views of where we are, where we're going, and how we got here. Prior to the coronavirus, we did these forums live, and had a packed house every night, which made us feel very good. With the coronavirus, we've opted to continue doing it, but it's been virtual over Zoom and Facebook. We've also been involved with political campaigns. We had the West Virginia Supreme Court candidates speak to us remotely, a program jointly sponsored with the help of local lawyers. The Supreme Court candidate discussion was broadcast live throughout the State on West Virginia Public Radio. We're looking for outside funding to help us if they can. Also, we aired a discussion between the candidates for the West Virginia Secretary of State race, which was very contentious. In addition, we had one of the local state senators' races which had state-wide interest. We've tried to do something on both the national level and the more directed pointed level. In anticipation of the upcoming convening of the West Virginia Legislative session, a member of each party will discuss what they hope to see during the session. In each of these discussions, civility between the participants is emphasized. We hope to provide the stage for meaty, substantive points of view presented in way not to offend or to anger. Also, the Institute has done a lot for the students. We invite selected high school students in from the area, and

they spend a day with local political leaders. The Secretary of State has been gracious enough to join. The high school students are given a problem which they will address as a group. The problem they addressed last year was: if you were giving advice to the President, what would you do if an infectious disease hit the country? Son of a gun, within weeks after that student exercise the world is hit with the coronavirus. It just so happened that the challenge we gave to the students was in real life, and I'm sure they developed memories they will never forget. We have a Jim Lehrer civility award that we'll give to a person in either the press or the federal government that we think has done the most in promoting civility. This initial award will occur this year. We have a new program that we've gotten quite a bit of grant money to work with the Nursing school and other majors within the university on how the students can become more politically astute and more politically aware. We'll never try to influence their political thinking, but we want them to know the pitfalls, assuming some of them will be head of nursing in some hospital, or they may be working on a presidential campaign. We want them to know how they can promote their discipline, their profession in the most effective way within a civil political environment. We are also sponsoring a radio station on campus and each week we have an hour to present a topic of interest. Even though the Institute is fairly new, it is doing a lot of good things. We've only been doing it about a year and a half now and have another year and a half before our initial funding runs out. I'm hoping we can find some more funding; otherwise, Bonnie and I may be committed to this longer than initially intended. Anyway, we're very proud of the reception that it's received. I'm going to give a plug – Bonnie and I are both a little embarrassed it's called the Bonnie and Bill Stubblefield Institute for Political Civility and Political Discourse, but we were told by numerous people that things like this need to have an individual name attached to it. After a little bit of arm twisting, it's the Stubblefield Institute. You can go to the Stubblefield Institute at Shepherd University or just google "Stubblefield Institute," and you can get access to all these programs. Some of them have been on CSPAN, all of them on Facebook, most of them on Zoom. So, you can get access. I should have mentioned earlier at our inaugural event, both of our U.S. Senators attended. We have plans for one of these Senators, Joe Machin, to join us for an arm-chair discussion. We are very pleased at this point in time for the recognition, the impact, and the success we've had.

MG: Yes. It's very impressive to get crowds of the sizes you've described in just the first year and a half of the program.

WS: Yes. We have a board of directors that is very impressive. I mentioned the fellow that's head of GOPAC. He also happens to be a local resident before he went to DC and became extremely well-known in Republican circles, his mother still lives in Martinsburg. We have a comparable individual on the Democratic side that has recently been recognized as the number one public relations firm in the country. He knows, on a first-name basis, all the wheelers and dealers of the Democrats. He, too, happens to have been raised in our area and his father still lives in Martinsburg. We have these two men of influence, all with local roots that have gone to DC and made a name for themselves on different sides of the political aisle. Also on our Board is a gentleman who served as the Secretary of the Senate when Bob Dole for Majority Leader. He was a senior staffer for several years and went on to private industry. Another one of the Board members worked with Public Broadcasting or National Public Radio for several years and knows that community very well. The result is that our Advisory Board consists of individuals with opposite political leaning, but they all come together. Our Board collectively knows

enough people that we can tap into big-name individuals, which gives us access to interesting persons to participate in our discussions. If we did not have this dynamic board of directors, in trying to strike out from scratch to get the type of individual previously mentioned to participate, we'd have difficulty. But we've had no trouble at this point in time. That's what makes the Institute more attractive. We recognize the bigger names that we have, the bigger draws. Working with the Board is a gentleman who has spent his whole career tapping into funding organizations. This is a real science in its own right. He's not getting paid for working with the Institute, he's doing it because he believes in the concept. We anticipate some of the very deep pocket corporations will be supportive. They've asked us to come back the second and third time with a grant proposal. Coronavirus has put us back on this because most of these organizations have closed the doors for a while, but they're beginning to reopen, and they picked up with the same interest level they had before. We have some optimism that if there'll be enough interest it'll be self-sustaining.

MG: How are you and Bonnie managing with the virus and during this tricky year?

WS: Zoom, Zoom, Zoom. We've each had a project. We're on several boards. Except for the wellness center on a given morning and Bonnie grocery shopping, we've stayed pretty close [to home]. We've done a couple of things this year that are kind of unique. We're fortunate to have a lovely piece of property right beside the Potomac River. We started what we call "pizza by the river" with three or four other couples. We provide separate pizza, separate beers, separate wine. People can come and sit close enough to visit, but far enough, to feel safe and socially distant. It's also a beautiful setting, something we've not really appreciated until we started doing this during coronavirus time. We also had a chance to finish projects. A project that I'm particularly pleased with, and I may have mentioned this, with a couple of cousins we covered some of our grandparent's life stories. I believe that I have covered this so let's forget about this. We've kept busy, walking the dog in the woods, zooming a great deal, trying to stay engaged. We've instituted groups of college friends or colleagues from NOAA and the Navy. Yesterday, we had a NOAA Zoom session. We do it once a month. So that's why I'm having some trouble sorting out what I've told you and what I've told these other groups. You're a good gatekeeper. If I start repeating my story, you can say, "Enough is enough, Bill."

MG: Finally, this project is to celebrate NOAA's 50th anniversary. So I was just curious if you had any closing thoughts about the agency as a whole, looking back on the last fifty years.

WS: Only positive, positive thoughts. I look back upon the individuals that I have worked with and how impressive they've been – Joe Friday, Eddie Bernard, Ned Ostenso, Joe Fletcher, Sig Petersen, Harley Nygren, Jim Baker, Alan Thomas, Harris Stewart, George Keller, Charlie Kearse, Rollie Schmitten, and Nancy Foster who died much too early. There's just a whole list of folks –John Oliver, Cheryl Oliver, people that have devoted their whole life and making the job perfect – Scott McKellar, John Albright, who's probably the most effective officer I've ever served with. They've all come in to do the job they wanted to do. Some of them had influence far beyond NOAA – Admiral Chris Andreasen, who was a superb NOAA officer, went to Monaco as director of International Hydrographic Office. From there, he went to the Department of Homeland Security, maybe DOD [Department of Defense], being one of the leaders of upgrading the military's capability and was one of the real giants in that field. The list

just goes on and on and on of people that have done great work. There are a couple of names I should mention – Craig McLean. Do you know Craig? Craig was Chief Scientist of NOAA. He's also head of OAR [Oceanic and Atmospheric Research]. Good man. All these people are good people.

MG: Well, I've gotten to the end of my questions. This has been such a treat for me. I've really enjoyed our conversations. I'm actually sorry they've come to an end, and I hope we can stay in touch.

WS: You know what this is going to do for me, though, Molly? It's going to be a legacy that I talked too much. People are going to look at that and say, "Man, did he not ever shut up?"

MG: [laughter] No, I think you should write a book. You have told such great stories. You really illustrated the influence and impact of NOAA as an agency, both the personal stories and the big picture stuff. So, this has been really valuable.

WS: Yes. One addition. This is a story that was told to me. The NOAA Corps was under fire most seriously, but NOAA itself has been under fire on a much minor scale several times in history. Thanks to the leadership that they've been able to survive. But there was supposedly a Senator or House Representative at one of the committee hearings, saying, "Why should I continue to fund NOAA? For the weather, all I have to do is turn on the local news at night, and I get all the information." The other folks sitting around the dais couldn't shut him up quick enough. They kept saying, "Look, fellow, don't you know where all that information comes from? The local news could not provide the nightly weather without NOAA. We could not do our long-term forecasts without NOAA. We could not give warnings for tornadoes and hurricanes without NOAA. We could not provide the safety of ships coming in and out of the harbor without NOAA. We could not manage our fishery stock without NOAA. We could not understand oceanography and the impact of oceanography on climate without NOAA. There is no agency that I know of that is integrated through the fabric of our society as much as NOAA. It's a story that is somewhat recognized, but not as much as it should be. There have been, through the years, push from various groups, both from the Hill and other individual groups, that NOAA should be presented as who they actually are: The Weather Service, National Marine Fisheries [Service], oceanographic research, satellite research. All that should be presented as individual units. I may have bought into this thinking at one time. I certainly don't buy into it now. I don't know of anybody who is buying into it these days. We have come to the realization that NOAA is greater than the sum of its parts. We are strengthened by weather not being, "This is part of the National Weather Service." It's part of NOAA. Same thing down the line. NOAA is becoming much better recognized for the importance that it is playing within our national fabric. I would challenge anyone to tell me of an organization or an agency that's made more of a comprehensive contribution than what NOAA has.

MG: Well put. I think that's a good place to leave it. I just want to thank you for all the time you spent with me, the stories you shared, and your work with NOAA over the years.

WS: Well, thank you, Molly. It's been fun. I've enjoyed it. Please don't snap on the top, "The most talkative person that I've ever interviewed." [laughter] Maybe you will.

MG: Don't worry. You're in good company. I like the talkers. [laughter]

WS: Okay, good. [laughter] Well, thank you, Molly. Thank you for doing this. This is great. If you have any follow up questions, it always will be a pleasure to look at your smiling face and knowing you're having fun times in Maine.

MG: Well, we will have to stay in touch. I am disappointed we could not do this in person, but maybe there will be a time in the near future where that's possible.

WS: It may be possible. I'm not sure, though, that through the remote connection we lost a lot. I think we would have been exhausted in one session, and it would have been a logistical challenge to get together two or three times. Zoom provides opportunities.

MG: I agree. However, I would love to have some pizza and beer by the river with you both.

WS: You would have been first in line. If you happen to be down in the DC area for any reason whatsoever, and especially when it's warm weather, come on over, and we'll have a pizza and beer.

MG: That sounds great. All right. Well, I'll be in touch with the next steps. It will take me some time to transcribe our conversations, and then you'll get a copy of all those before they're finalized.

WS: Am I going to have to read it all?

MG: You might have to at least glance over it.

WS: [laughter] Okay, fine. Thanks, Molly. It's been fun. You do a great job.

MG: Thank you so much. Take care.

WS: Bye-bye.

MG: Bye-bye.

-----------------------------------END OF INTERVIEW-----------------------------------
Reviewed by Molly Graham 12/30/2020
Reviewed by William Stubblefield 1/17/2020
Reviewed by Molly Graham 1/20/2020

Post Scrip January 14, 2021:
As I was reviewing the transcript provided by Molly, one of the most egregious events in the history of our country occurred. I would be remiss not to express my reaction. The invasion of our Nation's Capital, whether committed by Protestors or Insurrectionists – I will leave it up to each person to decide - was an affront to our most basic beliefs and our heritage. Between the

Federal, State, and Local governments, I have over 50 years of service, of which 40 years have been in uniform. A uniform, I always wore with pride and one that I was always thankful that I had the privilege of wearing. I vividly remember the Bay of Pigs, the fears of the Cold War, the assassination of President Kennedy, the impeachment of Presidents Nixon and Clinton, the Vietnam War, the horrendous Twin Towers carnage, and the impact that these and similar events had on our country and society. None of these, however, compares to what was witnessed on January 6, 2021. In fact, I don't believe that combined they compare. Most troubling is the recognition that it was not the involvement of foreign adversaries; it was our own people. People who while professing they were acting to protect their individual rights were in fact trampling on the heritage earned by thousands of Americans in countless wars and conflicts. It is difficult for me to imagine a marine at Iwo Jima, a frightened country boy fighting at Antietam, or a nurse interred in a Japanese prison camp condoning the ravage imposed on one of our most sacred buildings, a building that many readily gave their life to defend. This invasion was a thrust at the very heart of our Democracy. Their total disregard of the basic tenant of our freedom, in their attempt to overturn an election, is beyond the pale of frightening. Up until a week ago, such an idea of insurrection on American soil, let alone in our Nation's capital, was not conceivable; such possibilities were confined to those countries ruled by autocrats or dictators, not a country whose bedrock is free elections. To borrow from Abraham Lincoln during his Gettysburg Address, what we witnessed on January 6 will be a blight that we will never forget, nor should we. An unforgivable sin was committed against our Constitution, our History, and our Society.