

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
VOICES ORAL HISTORY ARCHIVES  
IN PARTNERSHIP WITH NOAA HERITAGE AND THE NATIONAL WEATHER SERVICE

AN INTERVIEW WITH ROBERT HANSEN  
FOR THE  
NOAA 50<sup>th</sup> ORAL HISTORY PROJECT

INTERVIEW CONDUCTED BY  
MOLLY GRAHAM

SILVER SPRING, MARYLAND  
DECEMBER 4, 2019

TRANSCRIPT BY  
MOLLY GRAHAM

Molly Graham: This begins an oral history interview with Robert Hansen for the NOAA 50<sup>th</sup> Oral History Project. The interview is taking place on December 4, 2019, in Silver Spring, Maryland. The interviewer is Molly Graham. I like to start at the beginning. Could you say when and where you were born?

Robert Hansen: I was born on April 22, 1949, in Bayshore, New York, which is on Long Island, the southern shore of Long Island.

MG: Can you tell me a little bit about your family history and how they came to settle on Long Island?

RH: My mother was born in Germany in Hamburg. She came over to this country at the age of two with her mother. Her mother instantly went into the hospital, and she died a few weeks later. My grandfather was then left caring for a two-year-old. My mother's background was an interesting mix of makeshift foster parenting with a couple that my grandfather had met on the ship coming over to this country. My father is of Norwegian descent. My grandparents came over from Norway, and they were all boat builders. It's a boatbuilding tradition that was with my grandparents and then, subsequently, my father. They all came over to this country. They were living in a community in Queens, College Point, New York, and ultimately moved out to Lindenhurst, New York, which was where I was born and raised. Actually, the house I was living in was owned by my great-uncle, and my parents had bought the house from my great uncle.

MG: Did you have the opportunity to get to know your grandparents?

RH: Oh, yes. Actually, my Norwegian grandparents lived with us, so that's why we grew up with Norwegian food. My other German grandparents, we would certainly spend time with them. I knew my grandparents very well. Typically, Thanksgiving dinner was never with turkey because my grandfather did not like turkey. We always had sauerbraten for Thanksgiving. Our typical Thanksgiving dinner was sauerbraten and cabbage and potato balls, and that sort of food.

MG: Has that tradition continued?

RH: I know some of the recipes. I do some of the recipes, particularly the German ones. I don't do the Norwegian ones. Although, it's interesting; this is getting near Christmastime now, so there is a Norwegian Christmas cookie, *fattigmann*, that is made with cardamom, butter, and that sort of thing. I've been thinking about making that.

MG: Tell me about the village in Norway where your grandparents are from.

RH: On my father's side, the village is called Arendal, A-R-E-N-D-A-L, which is southern Norway. I've been doing genealogy, so I have gone over and visited. The farm that my grandfather had owned is now owned by – he had sold it to his brother, and descendants of that brother still own that farm. It was fascinating to me – because I did this maybe five years ago. [It was] fascinating to me to see the farm because it was so isolating even now. I can't imagine back in the 19<sup>th</sup> century how very isolating that existence must have been. It's interesting to see

that my grandfather had so many siblings; I had no idea there were so many siblings. It was just an interesting experience to be there and to see the country and wonder why would you emigrate to another country.

MG: Do you know why?

RH: For a better opportunity. That's why he had come over, and my grandmother came over on the Norwegian side. That's particularly true of the German side of the family as well.

MG: They became boat builders. Was this part of the wartime industry?

RH: No, they were boat builders well before any kind of war effort. Even my German grandfather – switching gears – was in the German merchant marine. He was actually a prisoner of war in Australia during World War I. It's funny. When the war was over, he married his second wife. He asked her if she wanted to move to the United States or to Australia, so it was really up to her to decide where they were going to move to, and they settled on the United States.

MG: Did your mother ever talk about her childhood?

RH: Yes, I actually knew her foster parents. They were wonderful people, and they lived in the same community, College Point, New York. The first time I ever saw my mother cry was at the death of her foster father. I had never seen my mother cry before. She lived with them from the age of two to about the age of twelve. So that's a huge chunk of her childhood. Then my grandfather remarried when she was a pre-teen. So it was very challenging because her stepmother was now only ten years older than she was. It was a bit difficult.

MG: Was this during World War I and when your grandfather was a prisoner of war?

RH: No, that was much, much later. My mother came over in 1926. So that would have been from 1926 to about '36, '38, somewhere in that timeframe.

MG: Tell me a little bit more about the relationship your mother had with her foster family.

RH: She was very close with what I would call her foster sister. I always called her "aunt," though obviously, she's not my aunt. Then even when she married and their children – I considered those cousins. I was particularly close with one of the cousins, although we're really not cousins. Yes, I really enjoyed that family.

MG: Do you know what your mother's mother died from?

RH: I believe she died of tuberculosis. I have that death certificate from 1926, where they came into New York and was hospitalized immediately in Manhattan and died a few weeks later. I do believe it was tuberculosis.

MG: Can you tell me a little bit more about your father's childhood? I also know he served in World War II.

RH: What can I say about my father? He had always been living – at that point in time, grew up in College Point, New York. He only got through eighth grade and then went to work immediately in the boatbuilding business, following his father's tradition. That's his background, and my mother in College Point as well. He did serve in the Army and World War II and then came out of the war. He stayed in the boatbuilding industry, worked in private boatyards on the south shore of Long Island, and even the north shore of Long Island, specializing in wood boats. Fiberglass boats weren't really made at that point in time. He worked on mainly charter fishing boats. Actually, my brother and I used to have the opportunity to go on charter fishing boats on a regular basis. My brother was actually a first-mate aboard a charter fishing boat for a while. We did that sort of thing. We had fish all the time – particularly people who liked to fish that didn't want to eat the fish, so we wound up having a lot of fish.

MG: Do you know how your parents met?

RH: Do I know how my parents met? I believe my mother was dating [the man who] became my uncle, and I think it was those close-knit friends where they met. The man that my mother was dating wound up marrying my father's sister. I know. It's not incestuous, but it's still a close-knit group of people.

MG: You have an older brother.

RH: I had an older brother. He passed away several years ago, in 2013.

MG: I am sorry to hear that. He was born in 1946?

RH: 1946, that's right. Yes. He's a little bit older than I am. He wound up moving with his wife to Colorado in 1973. He divorced and then married another woman, and they had three children. So collectively, he had four children out there. He passed away at the age of sixty-six in 2013.

MG: What are some of your earliest memories from growing up?

RH: Some of my earliest memories growing up. My earliest memories growing up – because it was a small town on the south shore of Long Island. You don't think of Long Island as being somewhat isolating, but it was at that time, where there were potato farms and strawberry farms, and that sort of thing. I had gone through the same school system my entire life, from elementary to high school. I knew what high school I was going to in this rather small town. It was comforting to know. It would have been interesting to have traveled around or gone to different places, but no, we were in that same town, went to the same church growing up, and knew some of the same people.

MG: What kind of church did you attend?

RH: We attended mostly the Methodist church. It was a friend of the family that introduced us to that church because we didn't like the Lutheran church that we were attending. We went to the Methodist church, and I wound up being active in the Methodist Youth Fellowship and the choir. We would do Sunday School and the service every single Sunday. My brother and I both were confirmed there, and my brother actually married in that church.

MG: Tell me a little bit about your education and your schooling?

RH: Well, I went through the Lindenhurst school system and went through high school. Some states have Regents exams. I got a Regents exam and a Regents scholarship. We didn't have very much money, so I was limited in terms of where I could go to school. I come from a background where our family didn't go to college; it was just unheard of. So I was the first generation of going to college. I didn't have anything to base that on. I didn't have any mentor or anyone that would nurture me along. It was all fresh, new territory for me. I went to a state school because it was cheaper, a lot cheaper. I went to the State University of New York at Albany – I believe they call it something different now [University at Albany] – and received my bachelor's degree there. I majored in geography with a background in cartography. That's [the] basis of my education. Once I came to Washington, I did continue and take some master's classes at Catholic University in library science. Then I studied sign language at Gallaudet [University].

MG: You wrote in your survey that your family didn't feel education was important. I was curious about how that was expressed to you.

RH: I think it was that you just – if you graduate – and my mother did graduate from high school; my father did not. He got through eighth grade. So there was no tradition of education. It wasn't that it wasn't valued. I think it was just something that we just didn't do. You just went on. If you did graduate from high school, you went to work. That's what you did. My brother attempted college. He went to community college for a semester, and then he dropped out. Then he just went to work. It wasn't that they didn't want us to go. We just didn't have any background or knowledge of that.

MG: How did you know you wanted to go to college?

RH: That's a curious question. I think I was in the mix of students, where it was expected that you would go. I was getting a Regents diploma. All the Regents students typically were expected to go on to college. I also had the Vietnam War that was looming, and the draft for that. A student deferment was an important thing. So if you didn't want to go into the service, then you wound up getting a student deferment by going to college. It was a very different time at that time during the Vietnam War. It was such a hugely unpopular war, and it wasn't that we were against the soldiers; we were just against the war. It's funny. Today, you don't see that. It's very different times. Very, very different times. Anyway, I was able then to stay through college and have my student deferment. That's how that was.

MG: Was your brother able to avoid the draft as well?

RH: My brother was frequently called for the draft. He wound up being too overweight. The draft board would always say, “Oh, when you come back, the next time you’re here, you need to have lost some weight.” He would come back and gain even more weight. So that’s how he got out of the draft.

MG: Were you following along with the events of the war?

RH: Oh, very much so. You’re in college, so you’re very much aware. You’re very much aware of the demonstrations that were going on. There were all kinds of very – it was a typical college environment, where you’re hyper-aware of what’s going on in the world and what is happening – student demonstrations against in the war, particularly.

MG: Did you participate in any anti-war protests?

RH: I did. I was part of – some of my friends were conscientious objectors. We did council other students on becoming a conscientious objector.

MG: It seems like it was such a wild time to be in college.

RH: It was a very stressful time. There were some rather dangerous times, where students would be pulling fire alarms, and there would be all kinds of craziness going on. Actually, I remember one time there were some book burnings going on. It was very stressful. It was a very disturbing time.

MG: When things like the shootings of student protesters at Jackson State and Kent State happened, would that change the mood on the campus or hit close to home?

RH: Yes, because Kent State, I believe, was 1970. I was a junior in college at that point in time. So, yes, I was very much aware. Then, I was living in Albany. Albany was particularly known for a very difficult police force. It was challenging even to be in the city at that time.

MG: What about some of the other movements during that time, such as the civil rights movement or the feminist movement? Were there other movements that you identified with or supported?

RH: I don’t recall much going on with the women’s movements. With civil rights, definitely. At that time, they were trying to create more equality for African American students. So we would see more of an influx of African American students coming into the college campus. There was some resentment going on about that. One of my minors was, strangely enough, in African studies. I was taking all these African-related courses. I was in with more of those African American students. So it was a little bit different. But I would say yes, there was some of that. I wouldn’t say there were – I don’t recall many civil rights demonstrations going on at that time. I recall more so with antiwar activities than anything.

MG: What year did you graduate from high school?

RH: From high school, I graduated in 1967.

MG: Before I ask you more about your college experience, I meant to ask if your mother ever worked outside the home.

RH: Yes, she did. She started working when I was in third grade. She wound up working for a department store, Abraham & Straus, A&S, which is no longer in existence, which was absorbed and taken over by some other ones. She worked far more years than my father did. My father had a lot of breaks in employment. There were a lot of physical issues going on with my father. My mother was really the breadwinner of that family, where she was much more steadily employed than he ever was. Because he was a boat builder – he couldn't make the transition to fiberglass boats, so he stayed with wooden boats – he would typically lose his job. The work would end around November, and maybe he would start back getting employed again in March. There were some very big challenges. There were problems with alcoholism and other kinds of issues like that. It was difficult. Even later on, I wound up having to institutionalize my father. Those were difficult times.

MG: I bet. I was curious about what drew you to the subjects you studied in college – geography, cartography, and African studies.

RH: From an early age, I used to draw maps freehand. So I would draw both imaginary places and recreate actual maps to see how accurate I could be. I actually still have a few atlases I had made when I was in elementary school. For whatever reason, I'm not quite sure – I think it was probably my grandfather's travels that attracted me to that because he had traveled as a merchant marine in the German merchant marine, traveled all over the world. I think I was fascinated with travel. I think that's why maps were so important to me at the time. I would collect all the highway road atlases, and I would have all these things and study them and look at them. I remember my grandparents had actually given me two things. Two gifts they had given me was a subscription to *National Geographic* when I was quite young, maybe ten years old, which I had for many years. Then they had given me my first book on maps, which I still have. It's a classic book on antique maps. I think that was some of the basis of that. And my father being a boat builder, so I was familiar with nautical charts. I think that's how it came to me. That's why I wound up in that area. As far as Africa, I was always fascinated with Africa. Actually, I collect maps. My earliest map collections were maps of Africa.

MG: I'll ask you more about that later because you have a connection to Africa.

RH: Yes.

MG: Can you tell me about these maps of imaginary places that you designed? I'm picturing the map from *The Hobbit* and *Lord of the Rings* books.

RH: [laughter] Well, it was like that. I would draw these imaginary places and see how they could be juxtapositioned with each other. Then I would actually draw population centers for them, and decide where the farms were going to be or what bridges were going to be built. It

was a fun little pastime exercise. I don't know why I was doing these things, but that's what I did.

MG: Did you go to SUNY Albany to study geography and cartography, or did you happen into those?

RH: I more happened into those. Again, not having a college background or having anyone mentor me or guide me in terms of that – back in those days, you take your basic mandatory courses, and you hope that you will find what your major will be from there. You obviously have your freshman and sophomore years. I think I knew by my sophomore year that this is what I was going to go into. That's what I did.

MG: How did you find the professors you had and the courses you were taking?

RH: I actually still stay in touch with one of my professors. It was a professor that I had supported. They were trying to get rid of him. I don't recall the reason why they were trying to get rid of him, but I thought he was the best one in the department. There was a group of us in the department that helped support him and said, "We, as students, feel that he is a valuable member of the faculty, and we want him to stay." Of course, he didn't stay. What it did open up is that it opened up student representation within the department. That was the first time that there was actually student representation from the majors of that department and the faculty meetings. So that was an interesting way to get into that.

MG: Did you stay involved in that way, say on student council?

RH: No, I wouldn't say so. No, I didn't. That was probably the most active I was.

MG: Where did that professor end up?

RH: He wound up working for the State of New York for many years in the Department of Transportation. Actually, after I graduated from college, he wound up hiring me, which I'm just – it still touches me today – in a temporary state commission to study the water supply needs of southeastern New York. He was the director of that office on State Street in downtown Albany, and I was a research assistant at that time. So just called me out of the blue and offered me a position. During that time, Nelson Rockefeller was governor of New York, and he had a penchant for creating temporary state commissions. This was one of those temporary state commissions. Sometimes there were relatives of the Rockefellers that were on that commission that were in name only. But we also had a mission to do because there was a water crisis in New York City and Long Island. We were there to figure out, "Okay, what do we do to help solve this situation if it were ever to come up again." Some of the New York City reservoirs are actually in the Catskill Mountains and even the Adirondack Mountains. We were looking at creating more reservoir sites in the Adirondacks and the Catskills to solve that problem.

MG: Are you able to say who this professor was?

RH: David Buerle.



MG: Was that your first position out of college?

RH: Yes. Yes, indeed.

MG: What about your social life on campus? What did you do for fun?

RH: Well, I was one of those poor students, so we didn't have very much. Thankfully, I had a little group of people that we were in the same position. We didn't go out drinking or any of those kinds of activities. We were going to the international film group on Friday nights and spending our twenty-five cents or fifty-cents, whatever it was, to see that. It was a lot of those kinds of things.

MG: When you were getting ready to graduate, what did you hope to do next?

RH: I had applied for some federal positions. I thought, "Why not just do the SF-171 [Standard Form, Application for Federal Employment]," or whatever it was at the time. I don't remember the form. I just filled it out. It asked you, "Where do you want to work?" I just checked off a few places that I thought would be interesting. I remember Boston as being one of those interesting places to do that. But I wound up working then for the State of New York. But it was a temporary state commission. So that ended, and I knew it was ending. Then I was scrambling to try to find out where would be my next step.

MG: Can you say a little bit more about the water crisis at that time and what it entailed?

RH: There was a drought in New York City, and there were severe water shortages at the time. I believe it was in the late 1960s, where there was – particularly in New York City. Long Island gets its water from groundwater, but New York City gets most of its water from reservoirs. Particularly, as I said, in the Catskill Mountains, there were some reservoir sites. It was because the water shortage was so severe that the state realized they needed to do something to study, "How can we handle this?" I remember one of my fun assignments was to go to a site in the Adirondack Mountains. I would count how many houses were around a lake to see how many homes would need to be displaced to enlarge that lake for a reservoir. That was one of the fun things I did on that job.

MG: Fun?

RH: Well, you're tromping around the woods in the Adirondack Mountains, and it's not your home that's being considered. When they were looking at trying to expand some of these reservoirs, they knew that they had to somehow fill more water or have a larger backup water supply.

MG: I guess it wouldn't be fun to tell those people they were being displaced.

RH: No, no. That never had to be done. It was just a study to see how can we physically make these changes and what could be done to help do that.

MG: How long were you on that assignment?

RH: I was with the commission for three years. Three years, I believe. Yes, until late 1973, something like that.

MG: Where were you living during that time?

RH: In Albany, New York, downtown Albany. The offices were just below the capitol building in Albany. It was wonderful. I passed by the capitol building every morning and go to my office downtown on State Street. It was a good time in my life.

MG: What did you have lined up next? How did you find that position?

RH: After that position?

MG: Yes.

RH: I was scrambling. I didn't know what to do. It was challenging. It was a challenging time. I'm trying to remember if I had applied again for a federal position, or they could have taken my existing one. At that time, cartographers were always in [demand]. There was always a need for cartographers. I received a call from NOAA [National Oceanic and Atmospheric Administration] at the time that they were interested in picking me up. I didn't have to do any kind of testing or any of that sort of thing. You were just picked up based on your educational background that you had so many credits in cartography and all the right things, and would I be interested in a position. That's how that came about. I didn't know at that time – I wanted to stay with the State of New York because it was a great system. It was a thirty-five hour work week, and the benefits were terrific for the state. So I really wanted to stay with the state. That just wasn't happening.

MG: What did you know about NOAA at the time?

RH: I knew something about the Coast and Geodetic Survey, which is the precursor of NOAA or that part of NOAA, the charting part of NOAA. I was aware of that. That's probably the best that I knew about it. I knew some of the maps. I was familiar with some of the other maps by the U.S. Geological Survey. At least I was familiar with the kinds of maps. I didn't know how the maps were being produced or updated, but that's what I knew about NOAA. I didn't know anything else about any of the other aspects. At that time, we're talking 1973, early 1974. NOAA, as an organization, was only created in October of 1970, so really wasn't that old. There were some earlier elements of it that were around, but not collectively. NOAA as an agency just didn't have the name, if you will, as some other federal agencies.

MG: What was the job they hired you for?

RH: I was being hired as a cartographic technician with aeronautical charting. At that time, aeronautical charting was a NOAA function, if you will. It was reimbursed by the Federal

Aviation Administration. So FAA would give NOAA money to actually do aeronautical charts. There were many different kinds of charts. Thankfully, I wound up with visual charts, which are at least a nice map to look at, if you will. That's what I was being hired to work on.

MG: Had you studied aeronautical charting in college?

RH: No, not at all. It was all new. Again, the methodology, I had no idea how they did mapping. I knew what my making maps in college was like, but not in real life.

MG: Can you describe that process? What is it like in real life?

RH: Well, I thought I was going back a few decades because I did think it was a rather antiquated system. It was very interesting. At that time, aeronautical charting was in the Gramax Building here in Silver Spring. It was where the National Weather Service headquarters was. They occupied most of that building. There were three floors that were aeronautical charting; the ninth, tenth, and eleventh floors were aeronautical charting. There were different kinds of aeronautical charts and visual and en-route charts and instrument approach procedure plates. As I said, I worked on visual aeronautical charts, which is the one type of aeronautical chart that was a visual thing, where you could see mountains, you could see cities, you could see things. These other kinds of charts, it was all instruments, so you didn't see any of those visible kinds of things. There were lots of different plates that were being made. It was a lot of very manual kinds of things. Certainly not the technology that they use today with scanning images or any of that sort of thing. I really felt like I was going back in time, in terms of how they were made – stooping, being bent over light tables, working lots and lots of overtime. It was that kind of environment.

MG: Was the purpose of this aeronautical charting for flight paths?

RH: Yes. Many of the maps that I worked on – sectional aeronautical charts, world aeronautical charts, tactical aeronautical charts – were actually for small pilots, so for the small aircraft that they would have in their cockpit. A lot of the instrument ones were for larger aircraft. Many years later, NOAA decided they no longer wanted to have that part. They just said to the FAA, "FAA, you may have this back." I think some of the negotiations started in the 1990s. I think ultimately around 2000 is now the aeronautical charts that are done – that's why we have them in this building just right above us, in Building 4 of Silver Spring, FAA. They were all NOAA employees. I'm sure any new people coming in are wondering why FAA is in this building. Well, they used to be NOAA cartographers, and now they're FAA cartographers for the past twenty or so years.

MG: I read that aeronautical information changes frequently. What does that mean? What changes?

RH: My goodness. There are many, many changes. Some of those charts, some of the approach plates, were all revised every twenty-eight days. Incredible changes. Other charts were revised every fifty-six days, the en-route charts. The visual charts were revised every six months, and some of the others were revised once a year. But there would be massive changes in the

aeronautical information – airports being enlarged or changing names or runways being changed. That’s what became the bulk of the job. It was all edits being made to existing charts. The most interesting thing about the job, for me, was creating new additions of charts. It was much more fun, if you will, to start with a clean slate and then create this. I think that’s the way you would put the type on the chart, or how it would be positioned. It had to be accurate. But you had some flexibility as to where to put some of these things.

MG: Are you coordinating with other offices or agencies here to get the data and the instruments?

RH: Absolutely. Oh, absolutely. Most of the data came from the FAA, obviously. There was the base information, which would be coming from the U.S. Geological Survey, from all their topographic maps and all the flight data that’s coming in there. There was a lot of data coming in from many different offices – a lot of interaction with the other elements of NOAA at that time.

MG: How did the job change for you over time?

RH: Well, I realized that it was rather tedious. It wasn’t something – I said to myself, “I need to get out of here. This is not very interesting to me, to be stooped over a light table for ten hours a day,” or whatever it was. At that time, we had regular hours, so everyone worked from 8:15 to 4:45 PM. I knew that I wanted to stay with the agency, but I needed to get out. So I was applying for positions fairly early on. I lasted in that position for only two years before I applied for and got a position elsewhere.

MG: Was that with the National Ocean Service [NOS]?

RH: Aeronautical charting was also NOS. It was just a different part of NOS. It was NOS headquarters at the time. Yes. That was in a different location. That was in Rockville, [Maryland]. In those years, I recall there was something like eighteen different buildings in the Washington Metropolitan area that had NOAA facilities scattered about. When I got that position, as a technical information specialist in Rockville, just on Executive Boulevard alone, there must have been four buildings on Executive Boulevard that were NOAA buildings. Then, within walking distance, there were several others – North Bethesda office center, which is where HR [human resources] was, or personnel, and the Rockwell Building. There were that many buildings that were just NOAA just in Rockville at that time.

MG: Tell me more about the details of this position. What was your role?

RH: I was a technical information specialist, so I did a lot of responding to correspondence. That was a bulk of my [work]. I did a number of articles for newsletters, that sort of thing. I led tours of the building. That’s how I got to meet so many other different people, was it forced me to go into these areas and learn about what they were doing. It was actually fascinating between finding out how nautical charts were being made, photogrammetry, geodesy. It was quite interesting. We also had a museum in that building at the time on Executive Boulevard. So I would manage that little mini-museum. The director of NOS at the time was a NOAA Corps

admiral. It's a little bit different today because we have the assistant administrators. But at that time, because it was still a vestige of the old Coast and Geodetic Survey, it was still a vestige of the NOAA Corps.

MG: Who was that?

RH: Admiral Allen Powell was the director. At that time, it was called the National Ocean Survey, and then it became the National Ocean Service in 1982 or so, I believe it was.

MG: I think this is why the history of NOAA is hard to capture. There are a lot of name changes and office absorptions.

RH: Yes. At least with time now – in those years, NOAA was still fairly new. We were just coming off of ESSA, Environmental Science Services Administration, which lasted from about 1966 or '68 to about 1970. I think that was the first attempt at consolidation of the various NOAA entities.

MG: Why didn't ESSA last longer?

RH: I don't know. I don't know. NOAA was created under the Nixon Administration, as was EPA [Environmental Protection Agency]. So that's how that all came about. I'm not quite sure why ESSA didn't quite make it.

MG: What was ESSA's impact or footprint? Do you know what they accomplished in the few years they operated?

RH: Well, it was a similar sort of thing. Organizationally, many of the elements of ESSA became NOAA. I'm sure there were elements – I don't recall what they were – that were also added to the NOAA mission that were not part of ESSA, but I don't recall what that was. Certainly, some of the basic ones were there. Certainly, the Weather Service and Fisheries and some of those others were already there as part of ESSA.

MG: How long did you work as a technical information specialist?

RH: I was a technical information specialist from about 1975 to about 1984, I would say. It was mostly in the same office, but I did make a switch. I was still classified as a technical information specialist.

MG: How did your job change over the years?

RH: How did my job change over the years? I wound up ghostwriting some articles for the director of NOS. I always felt so uncomfortable with that because I would be writing about things I knew nothing about, and I didn't have any subject matter expert to help guide me in that process, so I would just have to create something. It would just go through the review process. They would say, "Okay, this is fine," and it would go to print. So I would see these articles with someone else's name, but I knew I wrote them. It was an interesting thing. We also ran a chart

sales office, which they can't do now legally. So I did some of that as well. The changes? Some of the offices were disbanded and moved. I wound up being in Riverdale, Maryland, which is where the chart distribution office was, still doing the technical information specialist position. It was a much more isolated existence over there. Then I wound up overseeing the map collection. The oldest map collection in the federal government was at NOAA at the time. Then I was also responsible for all the copper plates that were still leftover from the early charting days. They were actually physically stored in a vault in Riverdale.

MG: Did they become part of the NOAA Central Library collection?

RH: Ultimately, some of the maps went to the NOAA Central Library. They did not have very much of a map collection at the time. For whatever reason, it was a separate function from the NOAA Central Library. I think because the maps were sometimes used for charting purposes. I think there was that going on. The older maps, it didn't make sense. It made perfect sense to have them be part of the NOAA Central Library. Some of the maps went to the National Archives. Some of the maps went to the Library of Congress.

MG: If I were a researcher wanting to study these maps, I would find them outside of NOAA?

RH: Yes. There would be some at the NOAA Central Library. In fact, I just had an inquiry fairly recently about an Atlantic Neptune Atlas from the 18<sup>th</sup> century, and I believe it was tracked down to the NOAA Central Library. I think that one was kept within NOAA, which makes perfect sense.

MG: Can you describe a map like that? What's unique about it? What does it detail?

RH: Well, it's a manuscript map from the 18<sup>th</sup> century. It's these phenomenally beautiful maps of a chart of the coast. I'm trying to remember. This is going back quite a few years. It's a little bit challenging to remember. It was mostly of the coast of the United States. Because it was done in the 18<sup>th</sup> century, it was done by the British, so it wasn't that – but I think that's how the map library was developed, was in the mission of the agency at the time was to chart the United States, so they would collect all of these maps to help guide them in terms of making new charts. I recall even later maps from the [Lieutenant Charles] Wilkes exploring expedition, from the 1840s, where NOAA wound up with the actual copper plates from the Wilkes exploring expedition. Well, it's because, at that time, the Coast and Geodetic Survey was responsible for charting that. They needed all of these source materials to help guide them in producing more current maps with charts.

MG: It seems like a good way to study climate change and coastal erosion.

RH: There were shoreline movement studies. I recall some of those maps even back in the – I remember seeing those back in the 1970s, where they would actually chart the changes in coastlines. We didn't call it climate change at that time. We were just saying that these were shorelines movements. This was a natural reaction.

MG: If you put these maps from the 1800s up against a map from today, what the differences be?

RH: Wow. Okay. For natural areas, it's much more evident. You can certainly see that in areas – we'll take an example, Tangier Island, where you can see where the coast has been shrinking. You can see dramatic changes locally in the Chesapeake Bay, where there's severe erosion going on. You can see areas where private homeowners were putting riprap, stone walls, to protect their land from being eroded away. Certain areas were more subject to that. You hear of properties on the western shore of the Chesapeake Bay that are homes falling into the bay just because that is part of the natural process of the evolution of a coast. I see that going on, talking about climate change, with some of the nuisance flooding that's taking place today when we see in Old Town, Alexandria and Annapolis, and we see this in Miami, where we call it nuisance flooding, where it's high tides that are just flooding areas that normally hadn't received any kind of water at all.

MG: Can you describe the shift from the technical information specialist position to chief of the NOAA Map Library?

RH: You're making it much more fancy than it really was. [laughter] It was a matter of the map collection was there. You're making it much more elevated. Wow, that sounds like a really important position. I want that position. It was really not – it was a relegated piece of antiquity that most people didn't even know was around, and we had a few visitors, but very few people knew of its existence. At that time, the map library also contained multiple copies of U.S. Geological Survey topographic maps, one to 24,000 scale maps. There were thousands upon thousands upon thousands of these things. Our job was to pull a lot of these topographic maps. Cartographers would request them for a particular geographic area. We would have to pull these and then send them to the cartographer. The cartographer would then study these topographic maps to then do whatever they were doing for the NOAA chart. But the antique maps were also part of his collection of geological survey topographic maps. Obviously, very differently done today because it's all done digitally. So these hard copies are not done.

MG: At this point and for this position, was that what made you go into the graduate work for library studies?

RH: No, I'd started doing the library science work fairly early on. I was working a lot with a lot of other places like the Library of Congress, the Geological Survey, and a lot of their research. It was work I was doing as a technical information specialist. I was collaborating with a lot of these people. I was just fascinated – again, my fascination with maps – with the reference area at the Library of Congress. So I got to work with them quite often. It was very interesting to me. At that time, the chief of the reference area was teaching at Catholic University. He had told me about some of the courses that he taught there. I think he was very interested in considering me working there at the time. That was motivation for me to get that masters in library science, which I never did finish. But I did take some of the library science courses.

MG: Did you focus your coursework on maps?

RH: Absolutely, yes. Because I was very interested in doing that because a lot of my good pals, my good colleagues, and friends, were all at the Library of Congress. I would have just been like a pig in slop, [laughter] really enjoying that work at that time. It would have been interesting to me.

MG: Were you trying to get NOAA to adopt some of the practices of the Library of Congress in terms of their archival materials?

RH: That's a very good point because I was doing preservation at the time. I actually was preserving some of the particularly brittle maps. So we were taking mylar and encapsulating these to preserve them. Then I actually did produce a couple of cartobibliographies of maps that represented what was in NOAA's collection. I recall doing a Civil War cartobibliography, so all the maps in NOAA's collection that dealt with the Civil War. So I did that. It seems to me I did one on the Great Lakes as well, where I would at least assemble what was known in the collection and assemble it thematically.

MG: Who else were you working with at the map library?

RH: I was it. [laughter] There wasn't anybody else. It's a very small operation. It was a very lonely operation. I felt like the Maytag washer repairman because it was very isolating. You had to be self-motivated to keep on going.

MG: Did they talk about "lone arrangers" in library school?

RH: Lone arrangers? Interesting. No, I don't – you're reminding me, though, that I did use to go to the Naval historical [Naval History and Heritage Command] library down at the Navy Yard. At one point, I had borrowed their copper plates of the rest of the U.S. exploring expedition. We had the 19<sup>th</sup>-century printing press, and it was still operational at that time. So I would have those plates, and I would print those plates. I would give copies of – because they didn't have copies, I gave copies to the Navy, and then we kept copies of a backup. I did do that sort of thing.

MG: What are the copper plates?

RH: Nautical charts were produced by copper plate engraving. So they were engraved in the reverse. They're still over in Building 3; that's where the collection of copper plates are today. You'll see some on the walls of some of the buildings as you go about the NOAA campus. You'll see a copper plate, and then you'll see what the actual print looked like. That's how charts were produced at that time. There wasn't the lithographic means to print the plates, so they were actually engraved. That's just how charting was done through – lithography existed early on, but there was a sense that for charting purposes, it didn't have the accuracy that engraving had. So in some of the annual reports – we called them the superintendent's reports – they actually had lithographic copies in the backs of these things. For accuracy purposes, the engraved charts were the gold standard for charting purposes. Being a copper plate, you could only get but so many prints out of a particular plate before it needed to be reengraved or if it needed to be updated or that sort of thing. Do I remember when charts were lithographed? I



believe some of the engraved charts were still being done in through the early 1930s, I believe. I think that's finally when the transition to lithography was done in the 1930s.

MG: Has there since been a digitization effort to get these images and products online?

RH: They're all online. There's that terrific website that NOS maintains, all the early charts. I've referred people many times to the collection that's there, not only the printed charts but also the topographic and hydrographic surveys, which are the manuscript or source materials – just a fabulous collection that's there.

MG: I'm curious about the reference requests and how people are using these materials in their research.

RH: Well, certainly, with the surveys, the quality, the scale of these things are just an amazing sight to see. Then they have, what they call, descriptive reports that accompany these surveys. They go into particular little houses or the population or interesting little tidbits of information. It's just an amazing original source of information.

MG: How long did you stay with the map library?

RH: I would say 1984, and then I received my RIF notice, which is a reduction in force notice. So I was out of a job in about 1984. At that time – it's very different these days – I was, to use these government terms, bumped by someone from another line office. I believe in a reduction in force these days, you can only bump someone within your own line office. At that time, it was the last time that somebody from another line office was bumping me out of my job. So it was this trickle-down effect where these people with much more seniority would bump you out of position, and then you would be kicked down, and that sort of thing. At the time, the NOAA Central Library was being contracted out, so all these government librarians were becoming contractors. So the federal librarians were losing their positions, and contractors were coming in at the time. I was bumped by a NOAA librarian, which is appropriate for the map collection, so it did make sense. The person that came in here, I certainly knew her. I knew her at the time because I worked with the NOAA librarians. So I knew her when she was coming in to take my position. I was on the street, if you will, in 1984.

MG: Because it came up, can you say more about the contracting force at NOAA?

RH: Oh, gosh. That was early on with the contractors. That was something very different. I'm trying to remember back in those days. I'm sure it was a cost-saving initiative because that's what, typically, it is. I don't particularly know why the NOAA Library was hit by that. But they wound up keeping two or three, at the most, federal employees, and the rest became contractors at the time. The NOAA Central Library was in Rockville at the time, in 1984. It was on Executive Boulevard, an interesting little building that had been a cafeteria at one point in time. That was the first that I was aware of contractors. Up until that time, we were all federal employees. When we look at today, it has so morphed. I don't know what the contract population is today, but it's got to be a very substantial population of the NOAA employment. There are certain offices – the Charleston [South Carolina] office, for instance, probably has far

more contractors than federal employees in it. It seems to be, certainly, the easier way to hire. But it's a very different world to see contractors. The multitude of contracting companies is just so unbelievable. Just on this Silver Spring campus alone, I think there could easily be maybe twenty, maybe more, contract companies. You have to know the ins and outs of the different kinds of contract companies.

MG: How did you feel when you received the reduction in force notification? You had been with NOAA for so long at that point.

RH: I was very embarrassed by it. I didn't tell anyone about it because I was just embarrassed by it. I had been with the agency – at that point, I was with the agency for ten years, which is a pretty long time. I told very few people about it. In retrospect, when I came back to NOAA a few years later, several people actually said to me, "You should have said something to me. I would have found you a position." At that time, I was too embarrassed by it. I didn't say anything. I just left quietly.

MG: How did you spend those couple of years before you came back to NOAA?

RH: I moved back to New York. I'm from New York. So I moved back to New York. I wound up living in Manhattan on the Upper East Side. I was helping out as an assistant producer in industrial theater. A friend of mine was in the industrial theater business already, and so I just worked with him as an assistant producer in industrial theater.

MG: That sounds like an interesting time to be involved in theater in New York.

RH: Yes, and industrial theater is something else altogether so different because it's large clients like Toyota or IBM would hire this outfit to produce a show. Sometimes there's original music. Sometimes it's a whole production. Sometimes it's a big party. It was fun. It was interesting. I met a number of B-level performers at the time, so that was fun.

MG: Can you say a little more about this work and your life in New York during this time?

RH: Okay. Well, I'll tell you. One story was IBM was a client, and their motto at that time was, "We can do magic," if you recall. There was a group called America that sang the song. So we had America come in and perform for this group of IBM executives that came in from around the country. They performed for them. They wanted to give all of the attendees an autographed album for their experience. I wound up autographing fifteen-hundred albums. So all these people have this autographed album thinking that it was signed by [America], and no. At that time, America was down to, I think to two performers. But it was fun. It was a fair amount of travel, going on, and doing these shows. Some of the earliest laser shows, I remember being in the DC area with the laser lights going off, and they were fairly low. My job was to make sure no one was going to stand up because the laser was going to blind them. [laughter]

MG: Did you enjoy that work?

RH: I enjoyed it. It was very different. Very, very different kind of work. It was fun and creative. You got to meet interesting people. But it was also very expensive. It was so prohibitively expensive to live in New York, so it was very difficult.

MG: Earlier, you mentioned you took classes in American Sign Language. I was curious when that was and what your reasons were for learning it.

RH: That's when I was a cartographer that I did that. At the time, there were a lot of deaf employees that were employed there. I heard stories about why there were so many. It was an unusual number of deaf employees that worked in aeronautical charting. The story that I had heard was that it was a vestige from when they were in a very noisy room in the Commerce building, and hearing people couldn't tolerate the sounds of that, so they wound up hiring – I don't know why deaf employees had to be in this room with all of this noise going on, but they wound up hiring them to do this, and it didn't affect them at all. Their level of hearing was such that it didn't bother them. I don't know how true that story was. I suppose it's plausible because it was an unusual number of deaf employees at that time. So at lunchtime, I don't know why, but one of the things I would do – the deaf employees would get together, and they'd all be signing with each other, and I'd just join them. [laughter] Of course, I had no idea what was going on. Some of my friends were saying, "Well, if you're that interested, Gallaudet is starting up a new semester of sign language. Why don't you take it up?" I said that sounded pretty good to me. I didn't have a car at the time, so I would be taking the bus to Gallaudet University – Gallaudet College at the time – to take sign language. So I wound up taking a number of classes. I had a wonderful time doing that. I really had fun with the students that were in the classes. Anyway, it went back to that early time, but I had a good amount of fun doing it. I would go to performances at Gallaudet, which was fascinating to see some of the concerts that they would do, particularly at a music concert, they would pass out balloons to all the attendees. You'd sit there in your seat, holding the balloon so you could feel the vibrations; you could feel the vibrations of sound of the music that was being played. It was an interesting way that they could share that experience.

MG: Were you then able to participate in those lunchtime conversations?

RH: Oh, yes. They'd be very nice to me. They would be signing very slowly so that I could understand and that I could sign back to them. Several of them were very happy that I was making that attempt. I wound up taking a number of classes there. I wound up interpreting for some of the employees because, at the time, the ADA law, the Americans with Disabilities Act, hadn't been passed. So there were no requirements to have any kind of interpreter to do any kind of interpretation with deaf employees and their supervisors or personnel or anyone else for that matter. It was always a challenge then to interpret. Some of the deaf employees would say they would want me there so they could understand better what was going on, not that I was any good, but I was better than the alternative, which was either writing out little notes or trying to understand what was going on. I felt very not totally equipped because I don't feel I was always being totally fair to them so that they could fully understand what was going on. I was aware that it was probably better than nothing at all, but I wasn't very pleased

MG: Did those practices change in 1990 when the ADA was signed into law?

RH: Oh, yes. Yes, very much so. It was much more accommodating for them at that time. By 1990, I had lost touch with most of those deaf employees, so I wasn't there to see some of that transition going on. Many years later, when I was working in the Hoover Building, I was across the hall from the sign language interpreters there. I would converse with some of them and hear some of their experiences as being an interpreter.

MG: I did an oral history project on the disability rights movement and the Americans with Disabilities Act. I love hearing stories about the day it was signed into law. One woman describes hearing the news and going to call her mother from the Capitol Building, but can't reach the telephone from her wheelchair. The interviewees talked about how far we've come, but how much more needs to be accomplished in terms of accommodations.

RH: Obviously, being in a federal office, it much [easier] to make sure these requirements are met. You're just reminding me of when I would communicate with some of the deaf people; we would use the TTYs [teleprinter] or relay services. The relay services were strange because you'd be talking with a third party. You would have to pretend that they're not part of the scene. You're really trying to talk to the deaf person. The relay was just the person that was just relaying that information. That's how I would communicate with some of the deaf people. I found it a little bit awkward because I just wasn't used to that third person really not being there, but being there to be able to communicate with the deaf person.

MG: Were you ever in that noisy room you referred to earlier?

RH: No. So I don't know – I could see where the printing press is for the nautical charts were still in the basement of the Commerce building, right up until the 2000s, I believe it was. I don't remember what year they finally moved those presses out. I could see where some of them were a little bit noisy, so I suppose it could have been part of the printing operations that were going on. It could have been.

MG: What brought you back to NOAA? What was the position? How were you hired?

RH: I was desperate for a job again. Some of the people that I had worked with in Riverdale invited me to come back if I wanted to, but unfortunately, they could only hire me back at something like four or five grades lower than what I was when I left. But I really needed a job, and I didn't know where else to go at the time. I did have a home here that I was renting out. So that was how I came back in. I came back in at the highest level of a grade that they could hire me at. So I just had to start all over again. I was hired back as a technical information specialist.

MG: Was this for the Office of Public and Constituent Affairs?

RH: No, no. That was still in NOS. It was part of the distribution division for aeronautical charts. But the distribution distributed both aeronautical and nautical charts. So if you were writing in to order nautical or aeronautical charts, the distribution division is the one that handled it. That's what I came back in for.

MG: Can you say a little bit more about this position and what you were doing on a daily basis?

RH: Again, because of my background, I was handling some of the more difficult questions, some of the weird questions that would be asked. You're looking at me like, "What kinds of questions could that be?" Sometimes it was asking about some of the early maps or how to reference them. Sometimes it's a matter of the – I don't think the agency has done very well in terms of a public information office, where people would go to find out information. I was in that role. I knew where to go to direct people to find that right information.

MG: How long were you in this role?

RH: I was in that role for maybe two years. Two years. Then another former boss of mine hired me to come back into another office. That would have been about 1988, somewhere in there.

MG: What was the next step?

RH: I became a constituent affairs specialist then. That office was not in NOS. It could have been in the undersecretary's office at that time. I believe it was. So it was as a constituent affairs specialist.

MG: When you say the undersecretary's office, this was for NOAA in general?

RH: Yes, the undersecretary's office includes things like public affairs, constituent affairs, intergovernmental affairs, legislative affairs. They're in the undersecretary's world. There are a number of those staff offices that are under that umbrella.

MG: Who was the undersecretary at the time? I was curious who you have worked under.

RH: Oh, gosh. Well, I started working under Dr. [Robert M.] White, the first NOAA administrator. You wouldn't really see him, or I didn't see him at that time. But in 1988, you'd think I'd remember who that was, but I don't recall. It's easy enough to look up. Maybe we'll look that up.

MG: Sure. Actually, now is probably a good time for a break.

[TAPE PAUSED]

MG: We're back on, and you were just telling me about first coming to Washington, D.C.

RH: I had never been to Washington, D.C. before, so it was a very different experience. Initially, I was going to – I didn't own a car. I was going to borrow a car to drive down to Washington to start my job. The car that I was borrowing wound up having severe leaks in the radiator, so I was buying all that radiator fluid to try to stop it, and it still kept gushing out. So I wound up having to take a train from New York City to Washington, carrying one or two suitcases. At the time, they didn't have them on the rollers. It was pouring down rain on that day. It was on a Saturday coming down, and I was supposed to start on Monday. I had no idea

where I was going because you didn't have any kind of GIS [Geographic Information System] or any kind of Google Maps to try to help you find your way. So I wound up at Union Station early in the morning. I had to take a very early train out of New York to get here on time to try to find out where I was going to live, let alone try to find out where I was supposed to go then on Monday morning. So I wound up – at the time, they still had those lockers where you could put your luggage away and lock them up. I did that to say, “Okay, now we can try to find a place to live.” I didn't know where to go. I hadn't got any newspapers. I was clueless. I had spent some time volunteering for a religious order, the Oblates of Mary Immaculate. The priest I was working with at the time said, “Well, when you're in Washington” – he knew I was going to Washington – “you should look up the OMIs, the Oblates of Mary Immaculate, and then maybe get together or do something.” Maybe I could volunteer for them. I was so desperate that I looked them up, and I found out where the religious order was. I walked up there from Union Station – the OMIs were across from the shrine, the basilica on Michigan Avenue – walked over there. I thought, “If I phoned, they could easily say ‘no.’” But I walked up there, and they had just enacted a policy allowing lay people to actually stay in the seminary. I was the first layperson to be able to stay at the seminary. That's where I wound up staying that first night, that Saturday night. I actually wound up going to a party with a bunch of the seminarians that evening. They let me stay there as long as I wanted to without charging me. Then, on Monday morning, which was April Fool's Day, April 1, 1974, [I had] to try to find out where I was going. Personnel at the time was in Rockville, and my place of employment for aeronautical charting was in Silver Spring. I had to do this using public transportation and pre-Metro days to try to maneuver the city. You think back – “how did I do that? How did anybody do that to get around?” You just managed. Anyway, that was my experience moving to Washington and getting settled, and somehow, miraculously, making it all work.

MG: How long did it take you to feel settled here?

RH: Well, again, I didn't have a car, so it's more challenging. Pre-Metro, it's, again, challenging. I got to know the bus system fairly well. It was a matter of then once I was working in aeronautical charting, just talking with people to see where it is possible that I could stay that would be preferably within walking distance so then I could rely on how to get back and forth to work. Again, those days, there were mandatory working hours of 8:15 to 4:45 PM. I recall my supervisor having a little chart with our names. As you came in, in the morning, he'd check you off with a black pen. Then when the second hand reached the hour, then the red pen came out. After so many red checks, then you were docked an hour of time, or whatever it was, for being chronically late. People tended to be more on time most of the time. The same thing as night – literally, the second hand would come up to the clock, and then the supervisor would nod their head. Then we could dash out the door and go home. It was a very different existence than the alternative work schedules and the flex time and the telework that we have today.

MG: It sounds like it. You mentioned you purchased a house before moving to New York. Where was that?

RH: It was a condominium. Again, one of those naïve moves. I was buying a condominium down by American University, and I didn't have the income requirements to buy that. So they said, “Well, you need to get a co-borrower, someone on that.” So I naively asked a friend of

mine; he was a supervisor at the time. He cosigned the loan for me. It wasn't until years later that I realized how important that was, and what commitment he had for doing that. It was a wonderful thing for him to have done that. Otherwise, I just didn't have the income in order to buy that. It was a little one-bedroom condominium by American University.

MG: In D.C.

RH: In D.C., yes. Right near the intersection of Massachusetts and Wisconsin Avenues, over in that area.

MG: Wasn't there a NOAA office near there?

RH: The Page Building. The Page Building was off of Wisconsin Avenue on Whitehaven Street, just as you were coming down the hill. I would call that area Glover Park because it's well before you got into Georgetown. The buildings still physically are there. I don't know what's there, but certainly not any kind of NOAA entity. You're reminding me, again, of all the NOAA buildings that were around the D.C. area. As I said, there were at least eighteen buildings in the D.C. metropolitan area.

MG: Yes, and there was the weather building on M Street.

RH: Yes, the Weather Bureau was on M Street. That was around 23<sup>rd</sup> and M, or 24<sup>th</sup> and M, somewhere in there, before they moved to the Gramax Building in Silver Spring. The distribution division was on Connecticut Avenue, where the Intelsat Building is on Connecticut Avenue. That was there. At one point, I worked in the Universal Building, which is also on Connecticut Avenue, just below the Washington Hilton, right in through there, by Florida Avenue and Connecticut. It was there.

MG: The weather guys I have talked to have interesting descriptions of some of these older buildings and say they weren't in great condition.

RH: The Riverdale building would have been a fascinating building to have had a movie shot in. It was an old – what do they call that? – ERCO [Engineering and Research Corps] building. It was an airplane engine factory in its early years, and there was an abandoned airfield behind the building. The remnants of that airfield were still there. It's not far from the College Park Airport, which is a mile or two down the road from the College Park airfield. Because of the industry that they did in that building, that's why they had this abandoned airfield. There are whole parts of that building in Riverdale that were unused. There was nothing stopping you from going into those spaces. I would go up into the attic areas. There would just be these abandoned offices, so lots of pigeons flying about, and it's not the most clean area.

MG: Some guys described that if it rained, their desks would get wet.

RH: No, certainly, I didn't have any of those kinds of experiences, but the Riverdale building was a fascinating place to work in, indeed.

MG: What is it like today?

RH: The Riverdale office? Well, it's not a NOAA office anymore. It's my understanding that it was one of the largest undeveloped pieces of property inside the Washington beltway. Ultimately, it was being developed. It's right off of the railroad tracks. Actually, the Riverdale railroad station is within walking distance of that building, but as I said, that's where the map collection was. The copper plates were being stored there at the time. The topographic and hydrographic manuscript surveys were being stored there. The years that I was there, we would see the National Park Service was building a number of buildings. All the artifacts that were gifts to the president were being stored by the Parks Service in those buildings. They weren't publicly announcing that, but we knew that's what was being stored in those buildings.

MG: When we took a break, you had a chance to check who the administrator was when you came back to work for NOAA.

RH: Yes, Dr. William Evans. I seem to recall he was – we had one administrator who was a fisheries person. I should have looked that up before I did that, but I recall that was his background.

MG: This would have been after Dr. Robert M. White and before Dr. William Evans?

RH: Oh, yes. There were quite a few in between there because, with the administrators, I remember Richard Frank was the only lawyer that NOAA had as an administrator. Then Tony Calio, who had more of a NASA background. He was our NASA-based one. Dr. White obviously was the meteorologist before that. [John] Byrne was an oceanographer before that. Then Dr. Evans. I do recall Dr. Evans was a fisheries person.

MG: Are these positions nominated by the administration in office?

RH: Yes. The administrator is a political appointee position. That's how they come into place. It still stands today – we don't have any administrator or Under Secretary of Commerce for Oceans and Atmosphere. So the person who was nominated, Barry Myers, was the CEO of AccuWeather. I see he finally has taken his name off of the list. So the Weather Service is very happy about that. We had, who had been acting, our two assistant secretaries, Admiral Timothy Gallaudet, who was the former oceanographer of the Navy, and the current acting administrator or current Undersecretary of Oceans and Atmosphere for Commerce is Dr. Neil Jacobs, who was an atmospheric scientist. All things considered, I think NOAA has done very well under the current administration. It's been interesting to see the administrators over the years. They don't necessarily have any relationship with whatever that administration is at the time. I've worked with quite a few political appointees. You would have a different vision of working for NOAA as an agency in those political appointees, as opposed to the administration and what was going on with the administration as a whole. Part of my job, going into the constituent affairs background, was educating NOAA's constituents on the value of the work that we were doing so that they then could lobby Congress to support NOAA's budget. It was very gratifying for me because NOAA's a very morally defensible agency to work for. I was very proud and happy to have spent my years with the agency because of the really great work that the people did. Very



passionate. That's one thing I can say about lasting as long as I did is that you didn't necessarily get along with everybody, but most everyone was very passionate about what they did and believed in what they did.

MG: Does the administration in place impact your work in constituent affairs?

RH: You still have the same constituent base. There's still people that – you'll have constituents who disagree with you on certain issues. Certainly, fisheries is very contentious in terms of that, but there are people – my feeling is you do the best job you can to educate why you're doing what you're doing, and you'll disagree with them on some issues, but agree with them on others. You try to have that collaboration, if you will, to work with each other and know that you're going to agree to disagree on certain issues and hopefully make progress with other issues. In that way, the constituent base is still going to be the same. It's those people who are going to be lobbying or fighting for you with the members of Congress. That's why you knew who your friends were going to be. There's still groups to this day – it's called the Friends of NOAA, which is this collaborative group of people who are there to actually help support NOAA. They also believe in what the agency is doing. It's good to nurture those kinds of relationships. I was particularly very pleased with how well the NOAA budget has done. We could all claim responsibility for having done something, but it's the constituents who have lobbied Congress, and Congress has traditionally always been very supportive of NOAA's budget. Typically, Congress usually gives the agency more money than what the administration asks for. It was a good thing.

MG: How long were you in the constituent affairs role?

RH: I was in that role, in constituent affairs, actually for quite a few years. What I did changed a little bit, but I was still doing some of that. I did some of that, and then I wound up in yet a different office, But then I went back to constituent affairs. It was a little bit different. I don't know if I should continue that strain of constituent affairs.

MG: Sure.

RH: Because later on then, particularly when I came into the Office of Public and Constituent Affairs, we would be doing these budget briefings. We had a great constituent affairs team. It was just a fabulous arrangement of constituent affairs offices from the line offices. Then I worked in headquarters. There was a group of us in headquarters. We had these regional meetings to generate constituent support. We'd go around with the administrator at the time, and then the assistant administrators from the line offices as well to generate constituent support for NOAA's budget as well. Then I'd also wind up being responsible for the constituent budget briefings at the National Press Club, or sometimes it was in the Commerce auditorium, or sometimes in the [Ronald] Reagan Building [and International Trade Center], where we used to have two of them a year. Then we wound up just doing one of them. That was for the president's budget, which used to be, typically, in February, where they would announce what NOAA's budget would be. Again, the administration always tended to have a lower number for the budget than what Congress actually enacted for us. I enjoyed those. I enjoyed that. Admiral [Conrad C.] Lautenbacher was a very heavily constituent-favored administrator, particularly his

chief of staff, Scott Rayder, who I had worked with in other positions, as well. He became chief of staff, so he was a very constituent-related person. There was a lot of nurturing going on with constituents. We would do these constituent briefings on a regular basis that were topic-based. Sometimes they were environmental NGO groups, environmental nongovernmental groups, that would meet with the admiral, and we'd have the policy director at the time. It was interesting. It was very fun. It just seemed like a lot of very positive movements taking place during those years.

MG: Which years would those have been?

[TAPE PAUSED]

RH: There were a number of different office changes over time. When I was in constituent affairs, a new umbrella office was created. It was called the Office of External Affairs, which was an umbrella for legislative affairs, intergovernmental affairs, constituent affairs. I wound up being on the staff office of External Affairs for that office. That's when I became the NOAA historian. I had already had a background in NOAA history. My boss at the time, William Stanley – Bill Stanley – was the chief historian for NOAA at the time. My job title actually was changed to historian during those years. I was doing much more research in history during those years. I'm trying to remember what those years were. That was about 1990 to maybe 1992 or 1993 I was doing that. The NOAA buildings were being more and more occupied, so we were creating these mini museums in each of the buildings. The intent was to have – and it was part of the public amenities space that the building developers, Foulger-Pratt, was doing to include little mini museums in each of the buildings. There was actually one in Building 1 and Building 2 and Building 3. Then Building 4 in the science center was going to be the big museum. When that office was abolished, a lot of that then came to an end. Building 3 was just beginning to be occupied. That public amenities space was never then occupied. Building 4, which I don't know if you've been to the science center space, there are remnants of the hydro lab in that space. The printing press is in there. There's a few other strange artifacts. You wonder, "How did that ever get in there? Why is it there?" It was because it was in those early years, the late 1980s, the early 1990s, that it was meant to be an actual museum that was going in that space. When Building 1 was closed down because it had that sick building syndrome, and the entire Building 1 was shut down and was vacant for years, we had to take the museum out of that space. Ship models were mostly in there. There were a few other little artifacts. Building 2 currently has the "Gateway [to NOAA]" exhibit. But before that, there was a different kind of an exhibit that was related more directly to the Weather Service and the history of the Weather Service. Building 3, as I said, was not occupied. What happened then was a nonprofit organization wound up occupying that space.

[TAPE PAUSED]

RH: Anyway, Building 2 is now the "Gateway to NOAA" exhibit that Cheryl Oliver basically had, and I was part of that committee that created that "Gateway to NOAA" group, but she was the force behind that. Building 3, the exhibit space that was there, which is right off of the street level, right behind the "Hand" [statue], off to the right-hand side, a nonprofit organization occupied that space. I heard that they were clearing out of that space. I was then working in the

Office of Education. My office runs the network of Science On a Spheres around the world. There's a network that Carrie McDougall in the Office of Education manages. It made sense to me that why doesn't NOAA headquarters have a Science on a Sphere®. We didn't have a Science on a Sphere®. There was one in the Boulder offices and some of the other NOAA facilities. So I was negotiating with the chief administrative office, the CAO's office, to try to have the public amenities space be given back to NOAA for that. That didn't totally work out that way. At the time, we were looking at other spaces to have this sphere. We looked at the science center in Building 4, where the sphere would be raised or lowered whenever it was needed, but the Building 3 space was ideal because it was not behind security, so it was much more publicly available. After much negotiations and agreements with all the line offices – the line offices agreed to pay collaboratively the rent on that space, and that the Office of Education manages that space. So we were able to have the 100<sup>th</sup> sphere of the network of spheres put into that space in Building 3. What's wonderful about that particular sphere is that you have NOAA scientists that now look at it as a way of visually displaying their data, if you will, as well as being a public space to show what's going on. I've noticed that, particularly with this administration, that Admiral Gallaudet and Dr. Jacobs like being in there and having demonstrations going on in the space.

MG: How long had there been a chief historian in place at NOAA?

RH: My supervisor, William Stanley, was the first one. There had not been an official historian before that. Years ago, when I was – again, back to the constituent affairs days, in the late 1980s, [Albert] “Skip” Theberge was a captain in the NOAA Corps. My office, at that time, shared the same floor as the director of the NOAA Corps, in the Rockwell Building on Rockville Pike. So every day, I would pass by Skip's office. He then was being assigned, at the time, to write a history of the Commission Corps. Just like he was until the current times, his office was filled with stuff – slides and books and papers and everything else. He was tasked with writing this history of the NOAA Corps. He was specializing in that background. In the wings then, he stayed on. Skip, at that time, was still in the NOAA Corps. Then he retired from the NOAA Corps, and he wound up being hired by the NOAA Central Library. I don't recall if he was being hired as a federal employee. I think he was. I'm sure he was. Then he continued his expertise in history. He wound up more specializing with the Coast and Geodetic Survey, the NOAA Corps, [and] much less so with the other elements of NOAA. My boss, Bill Stanley, was more the broader NOAA – and trying to be more inclusive of that, where Skip was more narrowly defined. I think later on when Skip stayed for quite a few years, and then John Cloud, a contractor, came in – John's expertise was, again, with the Coast and Geodetic Survey, and they did that. They never really expanded too much with the broader NOAA element. Bill Stanley, as a chief historian, tried to be more inclusive. A lot of these different exhibit areas that were in each of these buildings – Buildings 1, 2, 3, 4 – we had a team of people that represented each of the line offices. So we had somebody from Fish and Weather Service, who was part of this team that was looking at the broader history of the agency.

MG: Were you tasked with putting together the NOAA History website and timeline?

RH: We didn't actually have a website at the time. That was a little bit early, in the late 1980s and the early 1990s. It was more the physical team.

MG: Would the work you did eventually become part of the NOAA History site?

RH: That was more Skip. Skip did that with, at the time, the NOAA webmaster, Janet Ward, I believe. I think Janet did the mechanism of the NOAA history website. That was more them. It was early on, but maybe the mid-1990s, I would guess is when that started. I think the earliest part of that website was the Coast and Geodetic Survey.

MG: The website has a number of pages. There's the narrative history, and then a timeline of breakthroughs and accomplishments. I was curious –

RH: How did that evolve?

MG: Yes.

RH: Well, I would say a bulk of that was what we called the NOAA 200<sup>th</sup> Anniversary back in 2007. I believe Skip then convened a group of people. It was mainly to celebrate the founding of the origins of the agency in 1807 with the Survey of the Coast [Office of Coast Survey]. It was more reflective of the broader NOAA agency. That's where we were taking certain personalities and voting on the champions of the agencies and those well-known people at the time. Each of the line offices were tasked with finding [who] those people were. I recall, in that particular aspect of it, either voting on or rationalizing why these people were significant as part of NOAA's history. That was one aspect, but there were broader pieces of this. They were trying to be more inclusive as being the foundations of NOAA, which the foundations were the Coast Survey, but then being more inclusive with the other parts of it. I think there were acknowledgments to long-term NOAA employees. I remember working on some aspects of that, trying to find out – getting a list of employees who had been with NOAA from the very beginning. Anyway, I think most of that history website evolved from the 200<sup>th</sup>.

MG: Were you interviewing those folks as I'm interviewing you?

RH: No, no. That's why it's a fascinating idea of capturing that because it's this whole-brain trust of capturing that kind of information.

MG: When you talk about the champions of NOAA, who stands out to you?

RH: Oh, my. I should have looked at that website before I came here. Certainly, one of the ones that stick out for me is Rachel Carson. NOAA claims Rachel Carson, but I know the Department of Interior also claims her. Because Fisheries went back and forth between NOAA and the Department of Interior, I think that's why it went back and forth. Rachel lived in Silver Spring. I think her house is a museum in Silver Spring. I think it's because of both the Silver Spring connection and that she was a Fisheries person that we claimed Rachel.

MG: Can you talk a little bit more about Rachel Carson and why she was so important?

RH: Well, certainly, *Silent Spring* was her clear book that she had written, echoing what's going on wrong with the world in terms of pollution and what needs to be done. She also wrote *Since Silent Spring*. [Editor's Note: Frank Graham, Jr. wrote *Since Silent Spring* in 1970 as a follow-up to Rachel Carson's *Silent Spring*.] There were several other books that she had written as well. I believe there's some smaller NOAA vessels that are named after her as well.

MG: Was she employed by the National Marine Fisheries Service?

RH: I believe it was the Bureau of Fisheries. I could be wrong on that. There was commercial fisheries and recreational fisheries, and I don't recall. Again, if we looked back at her employment, was it under NOAA at that time or was it under Interior, that I don't recall. I believe it was in the 1950s as I remember it. I don't know physically what building she was working in or where they were. I think they were also in those buildings off of Wisconsin Avenue. I think fisheries was in one of those Page Buildings if I recall.

MG: When you look back on NOAA's history, what else stands out to you as big moments and breakthroughs?

RH: In NOAA's history? Wow. I was not expecting these questions. I would have studied it a little bit more to recollect my memories of what is going on. Breakthroughs in NOAA's history. Wow. That's a curious question that I think I need to think about in more depth. The technology is really the thing that comes to mind. The whole idea of websites and internet was a huge breakthrough, and access to information. Information is power. The more information, the more educated, the more you know what is out there, is probably the thing that sticks out the most to me.

MG: Something else I hear in these interviews is NOAA services are becoming less siloed and more collaborative. Is that something you've noticed?

RH: In some ways. And in some ways, I still see those stove piping. Certainly, on this campus, it's frustrating because of the whole IT [information technology] structure and how a NOAA employee on this campus – if you're a fisheries person, you can't get onto the NOS computers, for instance. It's like, "Why? Why not?" You're in the same physical location, but it's just the way it's structured. But I do see some other, in certain fields – Corals, for instance – where you have people from NOS, from Fisheries, and from NESDIS [National Environmental Satellite, Data, and Information Service] that are all collaborative. Even though they're working for their line offices, they're all working towards this one purpose, this one theme. I see some more of that sort of thing.

MG: When you worked as NOAA's historian, were you getting your hands on really cool artifacts and archival materials to help piece together NOAA's past?

RH: Yes. It's the vestiges. The first heritage artifact inventory I did in 1992, where I was gathering these materials up, and if we were not the custodian of them, then at least I knew who was the custodian of it. That was interesting to see that some of these objects were still around.

I think some of those objects still exist under the heritage artifact inventory. Again, I did an inventory in 1992.

MG: Can you tell me more about the inventory? What was it an inventory of?

RH: Of heritage assets. So there were tide poles from the 19<sup>th</sup> century or certain other kinds of geodetic instruments, theodolites, that sort of thing. Even the printing press that exists in the science center in Building 4 is considered a heritage asset. I believe the hydrosphere, which is in the science center, that great big object, which was – that object in itself was used by NOAA in the 1970s, and it was given to the Smithsonian. The Smithsonian had cut part of it out so that it could be displayed what was on the inside. Mannequins were put in there, and you could see inside of the living circumstances, and that sort of thing. The Smithsonian then no longer was going to display it. It's my understanding it was the largest artifact the Smithsonian had ever displayed, and that was in the Museum of Natural History. So the Smithsonian then decided, "Well, NOAA, we no longer want this in the Smithsonian; you may have it back." I was involved in the actual movement of that hydrosphere from the Smithsonian. It was actually placed on the campus before the building was built. A crane had brought it in, put it down on the ground, and a shed was built over that until the entire building was then built around it. We had looked at different possibilities of where it could then go. There were one or two other takers that were interested in it, but at the time, we were looking at perhaps building this museum. That's why it's physically in the science center today.

MG: Was the NOAA Heritage Program borne out of these efforts, to collect and capture NOAA's history?

RH: I don't believe so. Cheryl Oliver, at the time, was working for the sanctuaries. Then she was involved with Preserve America and the heritage movement. I think she took some of the remnants of those things, so some of the heritage assets, and she regrouped them because it had been pretty well disbanded and defunct at that time. She picked up the pieces of those, and she also moved forward with some other initiatives that were taking place.

MG: Maybe you mentioned this, but I wanted to ask about the NOS bicentennial project – was that what you were doing in 2007?

RH: No. The bicentennial was 1976.

MG: [laughter] Way off.

RH: That was the bicentennial. Federal agencies were being tasked to come up with ideas to celebrate the bicentennial of the United States. Our suggested project was to reprint nautical charts reflecting the history of printing. We actually wound up printing both engraved charts from the 19<sup>th</sup>-century printing press and lithographic prints that we then sold to the public. So the engraved charts, because you could only get a couple hundred or so engravings, went very quickly and sold very nominally – that was actually the engraved charts. Then the lithographs were the backup that were being sold.

MG: You were doing that as part of your early work with NOAA?

RH: That was the early work at NOAA, yes.

MG: Does anything else stand out to you about that effort?

RH: The bicentennial? It was interesting to decide what charts were going to be selected and representative of the broader country, rather than select on certain ones and particularly maps that stood out. I recall some of the ones that we took that had nothing to do with NOAA. The early [Andrew] Ellicott engraved chart of Washington, D.C. – some engravings were done of that. Then we continued to sell lithographs of that. Then representative charts from around the country, and areas even including Puerto Rico – I remember San Juan, Puerto Rico being selected as far as that. That was part of the bicentennial of the United States.

MG: I am sorry to keep bouncing around, but you mentioned the inventory you put together. Was that something you published?

RH: It wasn't published. I think we made two or three or four copies. I still have a copy, just because I worked on it. That's one of the things I worked on. It was just a listing of what those artifacts were and where they were located. At the time, digital photography was not around, so I had one of these very early digital cameras that only took black and white, and they were very poor images. The images of the artifact then were included in that.

MG: What was the "Charting the Chesapeake Bay" publication? I have that in my notes.

RH: There were a number of publications that I worked on. One of the things – again, this is all pre-internet – was the products and information guide and the products and information catalog [Product Information Guide and Product and Services Catalog]. That was an attempt to collect every known product or service that NOAA offered. It had never been done before to list those out and, where possible, have a printed copy of that, what that looked like, or if it was a service, then it'd describe what that service was. The intent was to – it wasn't widely printed, but it was printed. It was given to mainly each of the line office staff offices or any office that did public information work so that they were aware of – okay, you got these wild calls about, "Can you tell me something about a fishing program?" "Well, I work in the Weather Service. I don't know anything about fish." So rather than say, "I don't know," we had these product catalogs that you could at least flip through there and say, "Oh, here it is." At the time, we had a phone number or a name or something that was established with that. So you could at least halfway intelligently respond to a question as it came in.

MG: That sounds very useful. Is there a modern version of that?

RH: Google. The outreach office that I worked in for quite a few years, you get all those calls because that's the first public number that you see. You get these calls, and you want to answer them and say, "Can I Google that for you?" You get those kinds of calls where people – I don't know if they don't think of Googling it, but you try to respond to them because, by and large, most of them are taxpayers. It was always my belief – and it's their belief, thankfully – that we

try to answer as best we can. We try to make the agency look responsible and responsive to whatever that kind of request is because they're just calling into NOAA. They don't always necessarily know where to call at NOAA, and it's not always easy to know where to call at NOAA.

MG: What was the "Charting the Chesapeake Bay" publication?

RH: "Charting the Chesapeake Bay, 1590-1990" started out being a book by someone I knew. I'm a member of the Washington Map Society. He had an extensive collection of maps of Maryland. So he wanted to start writing about his collection of nautical charts, privately made nautical charts. So I knew him from the map society. He was constantly asking me about Coast and Geodetic Survey charts and the process and all that sort of thing. I had been spending more and more time on this. So when all was said and done, I was writing so many different notes for him and adding information about the process, how it was done, and how it evolved, that he insisted that I coauthor this book with him. He wrote the earliest parts of it that were non-Coast and Geodetic Survey-related. Then I worked on the latter part of that, and that came out with that particular book. Then there was a map exhibit that accompanied that. It was at a number of different locations. It was at Washington College in Chestertown, Maryland. It was at the Calvert Marine Museum, which is a fabulous marine museum in Solomons Island, Calvert County. Then ultimately, the exhibit wound up being at the Naval Academy, and it was at the Naval Academy for quite a few years. The book was representative of that exhibit.

MG: What was that experience like for you?

RH: Oh, it was wonderful. It was very inspiring to me because it reminded me that I really needed to get back into mapping and cartographic history. I really enjoyed that. You'd think that would have inspired me to continue with that, but it didn't necessarily do that. But that's what happens in life. Russ Morrison was the man who had a fabulous estate on the Eastern Shore, right on the Chesapeake Bay that overlooked the bridge going over the Chesapeake Bay. He was wonderful to work with, with that project.

MG: When was it that you became the national outreach coordinator for education?

RH: The Office of Education was developed – there had been an education division in earlier years, and there were a number of people involved with that effort. That had pretty much disbanded when the Office of External Affairs was abolished. There were still remnants of education, and my colleague, Joyce Gross, was one of those people who still represented NOAA. I recall, even at the time, when Kathy Sullivan, who ultimately became the NOAA administrator, she was the chief scientist when – when Dr. James Baker was NOAA administrator, Kathy Sullivan was NOAA's chief scientist. My colleague, Joyce Gross, would meet with her on a regular basis to discuss things dealing with education. I believe some of the groundwork for some of that then ultimately helped to create the current Office of Education. You'd think I would know my history of the Office of Education better, but I don't. So Joyce was retiring. At the time, people in the Office of Education, the deputy director, Christos Michalopoulos, and another colleague in the office, Kim Benson, would have coffee with me every single morning to try to get me to come into the Office of Education. They would not give up. Every day it was,



“Let’s a cup of coffee.” After six months, they finally convinced me to join the Office of Education. So I credit both of them for their doggedness in getting me to come over. I always felt my strength was in constituent affairs. That’s what I feel I was best at doing, and I was most comfortable doing. Education was not something that I really did or did much with, at least in my estimation. Anyway, they convinced me to come over to the Office of Education. Joyce had retired, and then I came into the Office of Education and was the national outreach coordinator for the Office of Education. Again, it was under Admiral Lautenbacher’s administration that the outreach office, which had been in the Office of Public and Constituent Affairs, or now the Office of Communications, where we were able to transfer that function. The other person that was in that office at the time, Jeannine Montgomery, transferred into the Office of Education. It seemed to be a much better fit to have that function in there. So I had been affiliated with the outreach office for quite a few years. So I was delighted that it then came into the fold of the Office of Education. It still is there today. It’s still strong, and it’s very great hands, very wonderful hands. So I became the national outreach coordinator during those years. Again, then was able to bring that functionality into there. My colleague Jeannine and I were joined at the hip to be part of the outreach team for the Office of Education.

MG: What is your role there today?

RH: I only retired several months ago. It was doing any of the outreach aspects for the Office of Education. So we always felt our biggest client, our primary client, were educators, teachers, science teachers in particular. It was our outreach to them. To a lesser extent, it was the public because, again, that office does receive a lot of the public requests. That’s why the Office of Communications actually helps fund that office because it does do a lot of public functionality, and it does serve a lot of public needs. It does respond to most of the public requests that are still written – snail mail – because it still comes in, and telephone requests that are being handled by that office.

MG: What are some examples of requests or inquiries?

RH: It could be anything from careers to scholarships to science projects. We used to get a lot of those kinds of questions from students. Sometimes it’s a matter of just, in that position, finding out where it should go, because again, these letters come in and you don’t know where should I send it to? I don’t know these people. That’s why it’s a great office to know the broad NOAA community because we worked with so many offices not only in Silver Spring campus or the D.C. Metropolitan Area, but around the country. We knew those subject matter experts. We knew those people who are more amenable. We’d get requests from South Dakota or from Florida, and they wouldn’t necessarily know where their local NOAA office was. Sometimes it’s a matter of trying to find a speaker, or sometimes it’s a matter of trying to find a judge for a science fair, or those kinds of things. They still come in all the time. Now it comes in mostly by email, where they find you. The education page has been a website since, I would say, 1974. I was involved with the creation of that website, where it was even before there were browsers. The first browser I think was called Mosaic, which doesn’t exist anymore, but it was the first browser. At the time, my office was in the Universal Building on Connecticut Avenue. It was a NESDIS office that was managing the NOAA website. They actually let us create an education website. Before that, it was all gopher, so it was all text language. You would have to telnet in.

It was a very different thing. I just think it's a whole other world away from how it's done, but it was the first vestiges of getting information out into public hands without having to be involved with an individual. So I was very proud that we were able to get that education website, which stayed on. It's still continuing on. It has morphed, and it's a vastly different product than it is today. Obviously, a lot of things are handled by the web inquiries, which is a good thing.

MG: You put on your survey that you led or co-led five student ship naming contests for NOAA.

RH: Yes. That was in the Office of Education. Again, Admiral Lautenbacher came from the tradition of having been an admiral in the Navy, was used to student naming contests. He liked the idea of – why not do that for some NOAA vessels? He tasked at the time – I think I was in the Office of Constituent affairs at the time. My colleague Joyce was involved with that. So we had a team of people that started doing that with these student ship-naming contests. In all, there were five of them. Some of it was collaborative. Some people would drop off. We would, obviously, include other kinds of offices that were involved in that. Prior to that, NOAA had its systematic way of naming ships. There were all these different committees that were involved in that process. So they were not particularly happy with having this new group of people that were going to be involved with the naming of these ships, which then was ultimately being done by students. So thankfully, most of the ships were very NOAA-related. I think all in all, most – not all of them – were a success in terms of the actual ship naming. The *Bigelow* was the first ship, which is actually up in New England. I believe it's docked up in Maine or somewhere up in the New England coast, but it refers to a scientist that studied up in Maine that had the NOAA connections. [Editor's Note: The *Bigelow's* home port is Newport, Rhode Island, and the ship is named after oceanographer Henry Bryant Bigelow, the founding director of the Woods Hole Oceanographic Institution.] That was a regional ship. We had the national ship naming competition, which ultimately named the *Okeanos Explorer*. Now, the Office of Ocean Exploration and OAR [Oceanic and Atmospheric Research] had actually wanted to name that. They were fixed that this was going to be it. But Admiral Lautenbacher said, "No, this is going to be a ship-naming contest. We tried everything we could to try to accommodate the office to have this name, the *Ocean Explorer*. I was giving them guidance on how to do this, partnering with a school, or doing something that fell under the parameters of this. But that never happened. So that's how the *Okeanos Explorer* was named. It was named by a school in Wisconsin that wound up doing it. We had these rules and guidelines set up in terms of what they needed to do to write essays. In certain instances, we had projects that were done. That was some of the earliest contests. That got to be a little bit awkward with them shipping in their project because some of them were models or those kinds of things. We morphed into doing more essays had had ocean literacy principles tied to it. Or they would have to write about how the name could be a NOAA-related name, that sort of thing. So the *Okeanos Explorer* was the national ship, which is still out in the waters. Then we had two other regional contests, which ultimately named the *Bell M. Shimada*, which is a West Coast fisheries vessel, and the *Ferdinand R. Hassler*. What we wound up doing was bringing in the students from these teams. We gave parameters that there could only be a certain number of students on these teams. The winning students were flown into the keel laying ceremonies in Pascagoula, Mississippi. So it was fascinating for them. I would arrange for tours for them to go to see the labs in Pascagoula, and we would have these nice ceremonies. They would come for both the keel laying and then the

commissioning of the vessel as well. That was a very fun part of it and hopefully stimulating to these students, who I don't know, to this day, if any of them ever wound up coming into any kind of science career. It may be an inspiration to them. Anyway, that was the *Hassler* and the *Shimada*. Then the last student ship naming contest was meant to be for the entire Gulf Coast. So we had a methodology of how we did this. We would broadcast to all science teachers because there's this national science registry of science teachers. So you can buy their lists, and you can send them out so that at least it's known that they could participate in this contest if they wanted to. This was our plan, to do this for the Gulf Coast. We had our plans set. We knew that we were only going to do the Gulf States for this contest so that they would be the only ones eligible to do this contest. Then Hurricane Katrina hit. That squashed that whole plan for that contest because of the devastation that the hurricane had done. So the ship was still being built. The shipyard in Pascagoula was still – even though they suffered some damage, they were still building this vessel. I think it came about that with the senator – I'm trying to remember who the senator's name was. I don't remember who that was. It was an agreement that there would still be a contest, but it would only be for middle school students in the state of Mississippi that would have this content. The admiral had come to us and said, "Can you do this contest?" Of course, he's the administrator, so you say, "Of course we can," not knowing how successful we were going to be able to pull this off in, I remember, a very short period of time that we had, much less than – and it was a problem with the school years and all that kind of stuff. So we wound up getting sufficient entries in to still pull off a contest. I don't remember how many entries that came in, but it was mostly private schools that did it because public schools have a much more rigid way of what they can do with their curriculum. Actually, we wound up finally getting that. The contest was then going to be with middle schools in the state of Mississippi. There were a number of ideas that came about to name the ship the *Rachel Carson*. I believe it was the senator from Mississippi, Trent Lott, who basically said, "Over my dead body will a ship be named the *Rachel Carson*." So we had to just proceed with the other names that came up in the contest. Certainly, for us, the *Rachel Carson*, we would have been happy with that, particularly since she had a fisheries background. It would have been fine for us, but because of that congressional pressure, if you will, to not go with that – and it was the senator who was suggesting that we could perhaps just do the contest for the middle schools in Mississippi; that's how that came about. The final name that came up was the *Pisces*, which is a very non-NOAA name for a vessel. I do recall in those days that it was not a very popular thing. I don't believe that most of the NOAA entities that were generally involved in ship naming were very pleased with that name at all, but there was really not much we could do. The students, at the time – it was a Catholic school in Northern Mississippi, I think close to Memphis I believe, that – I'm trying to remember the name of the school because it was a great bunch of students and a great teacher that was involved in it – just had a very good rationale to name it. They did an admirable job of doing it. We were following our own guidelines in terms of the ship. So ultimately, that's what the name is, and it still is today, the *Pisces*.

MG: Why would the senator be opposed to naming a vessel after Rachel Carson?

RH: Well, there's still some of the remnants of the, for lack of a better word, non-environmental friendliness toward what was going on in the government. It could have been pollution standards or that sort of thing. I suppose we could look back at his record to see was he against some of

the EPA guidelines or some of those enforcement issues. I don't know. But I believe that was some of it. That's what I recall from those times.

MG: You also mentioned on your survey some special events and anniversaries you've been involved with, such as Year of the Ocean – I'm not sure when that was.

RH: 1998.

MG: How did you celebrate the Year of the Ocean?

RH: Year of the Ocean actually was quite the event. It was during the Clinton administration. It was a whole series of things to – I'm trying to think even from the beginning to say what was going on. It ultimately brought together ocean experts from around the country, where we were hand-selecting specialists to come to this conference in Monterey at the time. Al Gore was a part of this whole process. Al Gore was very much involved with what was going on with NOAA operations. NOAA leadership was frequently meeting with Al Gore over NOAA issues in general. At the conference in Monterey, even the President and Mrs. Clinton were there, so we all go to meet them [and] anyone that was involved that conference. A lot of what the recommendations that were coming on then were enacted into legislation. There were a lot of ramifications that took place as a result of that Year of the Ocean that were very long-lasting. An amazing amount of work at that time.

MG: There was also the Year of the Coral Reef and Year of the Poles.

RH: Years of the Poles, Year of the Coral Reef – yes. Those, I don't feel from my perspective, weren't as legislatively active. But they were still made to be much more aware of the loss of coral reef or the loss of the poles, climate change. Climate was very big in the Year of the Poles, that sort of thing. It was to coincide with U.N. efforts, as well. I think it coincided with the United Nations' efforts. It was a matter of tagging on to them, but also NOAA's role in those kinds of activities. You're just reminding me again, going back to the Year of the Ocean, in selecting some of these individuals, I remember one of the people who wound up participating in that Year of the Ocean conference was Jane Lubchenco, who ultimately became a NOAA administrator years later under the Obama administration.

MG: Right. Are there more "Year of" celebrations coming up or planned?

RH: That I don't know. I don't know the answer to that question. Again, having been now recently retired, I'm not involved in that. But that's interesting. I don't see that much of that sort of thing. From an education viewpoint, then we would try to tie in educational products that would tie into that. Back in the day, we would do these education kits. So after Katrina, then we did this hurricane education kit. We would do a DVD and a CD of education resources, and we'd have these books and supplemental education materials, posters, that would support that hurricane theme that could be brought into the classroom. We did the same thing with the International Year of the Poles to support that whole effort, so we had polar education materials that were involved with that.

MG: I think you developed educational toolkits, too, for the NOAA anniversaries.

RH: Yes. There were toolkits for the 30<sup>th</sup> and for some of these other anniversary years. The 30<sup>th</sup> I don't recall had many education elements. The 200<sup>th</sup> had some education elements to it, certainly. One of the wonderful education products was a hands-on activity guide, which has been revised and is very popular, both as a PDF and as a hard copy because teachers still like hard copies.

MG: What were each of these celebrations like?

RH: They all were different. The ten and fifteen were very simplistic. We had picnics on the [National] Mall and invited NOAA employees to come to them and participate in those. The earlier anniversaries were very simplistic. You never wanted to spend a lot of money on it. For the 20<sup>th</sup>, I seem to recall that we did mostly commemorative kinds of postage stamps. 25<sup>th</sup> anniversary there were more celebrations around the country. I think one of the popular things [that came] out of the 200<sup>th</sup>, were the Postcards from the Field, which was a very popular thing to do, to say what was going [on] around the world in terms of the NOAA office. Even that exists today.

MG: Yes, I like those. Before you retired this year, were you working on any efforts for NOAA's 50<sup>th</sup> anniversary next year?

RH: There were some early discussions of that. Cheryl Oliver had been with sanctuaries, and she had just been transferred into the Office of Communications. I believe that was one of the functions that she was tasked to do was to work on the 50<sup>th</sup>. Part of me was debating whether to stick it out yet another year just to be involved in that. Sometimes you know it's time to retire.

MG: How did you know to retire?

RH: I've had a very gratifying career. I've loved the diversity. I loved the ability to work on different tasks at different times. Yes, there were still some nasty things that you had to do. There were some very ugly things that I was involved in, but you just did them. That's why they call it work. I love the diversity of the task. I think part of it, in terms of the time to leave, is my age, and there are other things in life going on. You love what you do and what you did and who you did it with, but it's a natural progression. I think it's a combination of my physical age. I had just turned seventy. So it's time. There's this whole other generation. I always felt like I was keeping up with the times, but the younger generations have new ideas, new ways of doing things, and it's really time to bring them up. I wanted to see that for myself. I wanted to see a transition of my job. I knew it was going to be done differently, but however it was going to be done, I wanted to see that it was going to be done well. So at least I was involved, and I had a hand in who was transitioning into my positions and the various tasks that I had to do. I was very pleased with how that has evolved. I'm delighted at how it is today.

MG: Good. Well, now tell me about your life outside of work. I'm really curious to hear about your husband and the work he does. But first, tell me how you met.

RH: How we met. My husband, Kevin Mallinson, was a nurse at an AIDS unit in Johns Hopkins Hospital. At the time, my partner was a patient there at Johns Hopkins. He had been hospitalized a number of different times. So I'd gotten to know most of the nursing staff there at Hopkins over the years during that time. So my partner Jake had died. That's how I actually met my husband Kevin, which is an odd way to meet someone. I've not really told very many people that story, but that's how we met.

MG: He must have understood what you went through.

RH: Oh, indeed. Absolutely. He had seen so many people die of AIDS and to have gone through that. There's that whole professional division of interacting with a patient from the professional standpoint. There had been a period of time – even though I met him at that time, then there was a period of time after Jake's death that nothing had happened. Then it was contact quite a few months after that time that we activated our friendship.

MG: I am so sorry to hear about your partner. That must have been such a difficult and confusing time.

RH: Those were challenging times. When Jake had died in 1992, the whole gay identity was still not very public, and I certainly was not public about it in my NOAA career at all. There were very few people I could tell even back in 1992 that he had died. At work, I certainly did not disclose that I needed to arrange a funeral. It was challenging, even in 1992. Some offices were a little bit more open than I was aware of, but I certainly didn't feel that way in my own office, so I never disclosed that information. I was developing the ceremony and doing all of that in a vacuum.

MG: Did you have the support of your family or his family?

RH: I had mostly the support of his parents. He had been married, so I knew his wife, and I knew his daughter. They were involved in that process. They were involved.

MG: Your husband Kevin has done some really remarkable work in Africa. I was curious if you could tell me more about it.

RH: Yes. Well, he had wound up working toward a master's degree in nursing at Johns Hopkins and got his master's there. We were already together by that time. Then he also finished his PhD at Johns Hopkins. He was working with some other nurses, and being asked for help in research for a project, for a grant that was being done by a colleague of his at the University of Michigan. She actually asked him if he was interested in joining her in going to Tanzania on a project. He jumped at the chance of doing that because his colleague, the PI, the principal investigator. That's how he first started his work in Africa. She ultimately died, and he wound up being able to take over that project. But that's what got him started in that whole project of working in Africa. Ultimately, when he became a professor – he was a professor of nursing at VCU [Virginia Commonwealth University] in Richmond and then later at Georgetown University. He wound up getting a grant to build nursing capacity in sub-Saharan Africa. He specialized in the countries of South Africa, Lesotho, and Swaziland, which is now known as

Eswatini. They changed the name last year to Eswatini. But he's also done work in some other African countries. In Zambia, he's done some work and Uganda and a few others. But he principally builds nursing capacity in those countries. That's because they're so few doctors and the doctors can't do everything. It's the idea of having nurses take on more responsibilities and do more kinds of things with patients in those countries. He wound up then going on multiple trips. One of his grants that he had received was to help him bring nurses over to work in clinics in some of those countries, to work aside with the nurses to show the nurses in those countries the kinds of things that they could do. It was wonderful in terms of the opportunity for nurses in the United States. These were nurses who were members of the Association of Nurses and AIDS Care or ANAC. They were approached first because the principle need were nurses who were familiar with AIDS because AIDS is so prevalent in Africa, to work with the nurses in these sub-Saharan countries. That's the kind of work that he was doing. They were working in hospitals and working in clinics. In some instances, you were out in the bush, in the field. So you'd roll out a mat, and that was the clinic of the moment.

MG: Did you ever travel with him?

RH: Yes. I didn't necessarily go on those clinical things; that was mainly for the students and for him. But I went over. He's been over maybe thirty times over the years. I went over maybe five times. I've traveled with him around South Africa, Mozambique, Swaziland, Lesotho, Namibia, all those countries. He had received a Fulbright Scholarship in Swaziland, so he was living in Swaziland for a year. I visited him a number of times while he was living at Swaziland, and he was affiliated with the hospitals there.

MG: There was a fellow from Swaziland that you brought over and put through college.

RH: Yes, there was a young man that worked at the hospital Zakhele Thwala, who Kevin saw a lot of potential in. He came from a very poor homestead with no running water on the homestead. They did have electricity, but poverty like you can't imagine seeing. He was determined that we would bring him over to this country and put him through college. We brought him over, and he actually started at Northern Virginia Community College and received his associate's degree. Probably one of the most exciting times for him was his English professor, who wound up being Jill Biden. He developed quite an affinity to her and to have her as one of his professors there. He got his associate's degree at Northern Virginia Community College. Then they have that transfer program with automatic acceptance into George Mason. Once you meet the requirements at the community college, then you're automatically accepted at George Mason, so that's what he did. For his junior and senior years, he finished at George Mason.

MG: Does Kevin teach there as well?

RH: He's there now. Yes. Kevin wound up going to St. Louis. He was affiliated with Barnes-Jewish [Hospital]. Then when he came back from his Fulbright, he actually interviewed by Skype and got the job on a Skype interview at George Mason. So he oversees the PhD program in nursing at George Mason University. It was a matter of convenience that Zakhele went there.

We didn't get a family discount, but it was a ride back and forth to the campus from where we live.

MG: But he feels like family to you?

RH: Absolutely, yes.

MG: I think I've gotten to the end of my questions, but is there anything I'm missing or anything you would like to add?

RH: You've covered quite a lot. I would think there's probably some gaps in there or something – "I should have said this. I should have said that. Why didn't I bring up this, that, or the other thing?" I can't think of what that might be at the moment.

MG: Well, it's not hard to add more to the record. We can always get together again, or you can amend the transcript. Before we wrap up, looking back, what stands out as the most meaningful to you, in terms of your career at NOAA or outside of NOAA?

RH: Most meaningful – it's a hackneyed, tired thing, but it's the people. It's the mission of what the agency does. It's the passion that the people have. That's really what kept me, even as long as I worked in the Office of Education, is incredibly dedicated people that were driven to do their job. It was fun in the Office of Education because I was certainly the oldest person in the room, and to have these twenty and thirty-somethings that still looked to me for either information or guidance or just bouncing ideas. It's a very flattering thing to be in that kind of position, to still feel valued and not feel like some anachronism or some antique that was on a dusty old shelf. That's probably it. I've worked with some absolutely wonderful people. To have ended up in the Office of Education was a very gratifying, very satisfying feeling.

MG: Good. Well, I really want to thank you for all the time you spent with me this morning. This has been a real treat. I'm so glad we got to do this.

RH: Certainly. I enjoyed the experience.

MG: Thank you so much again.

-----END OF INTERVIEW-----

Reviewed by Molly Graham 12/30/2019

Reviewed by Robert Hansen 2/10/2020

Reviewed by Molly Graham 2/18/2020