

Matthew Forrest: Good afternoon. My name is Matthew Forrest. This is an oral history interview with Lisa Symons for the *Mount Mitchell* Oral History Project funded by the NOAA Heritage Program. The time is 2:30 Eastern Time on December 1, 2020. I am joining from Woodbridge, Virginia, and we are conducting this interview virtually. Lisa, where are you joining from?

Lisa Symons: I'm joining from Falls Church, Virginia.

MF: Very good. Lisa, tell me a little bit about your background. Where were you born? Where did you grow up? What was your childhood like?

LS: I was born in Muskegon, Michigan, grew up in Holland, Michigan, and spent time on both Lake Michigan and Lake Huron. So being on the water, being a sailor, being in the water was always part of my childhood, and where I typically went to get my head on straight was to go out on my small sailboat and spend some time by myself out on the water. I went to Alma College, which is a small liberal arts school in the middle of Michigan, for my undergraduate degrees in biology, history, and a fellowship in public affairs, and then went to the University of Michigan – what at the time was called the School of Natural Resources for a master's of science in environmental advocacy and policy.

MF: How did your family end up in Michigan? Did they live there for a long time, or did anything bring your parents there?

LS: Both sides of my family, my mom's family and my dad's family, had both been in Michigan for quite a while. They had been on either side of the state. My mom grew up on the eastern side of the state in a little town of Yale, Michigan, and my father grew up in Ionia, Michigan. My paternal grandfather had been on the faculty of the University of Michigan as the dean of the School of Transportation and, at one point, was an acting secretary of transportation during, I believe, World War II. My parents actually met at the University of Michigan, at the University of Michigan sailing club, where my dad had attended after he'd spent four years in the Coast Guard, where he had a pretty basic, not very exciting career, except for taking part in the rescue of personnel off the *Andrea Doria*.

MF: Interesting. Did he have any stories from that?

LS: A few. He didn't talk about it too often. He was on one of the spotter aircraft, and the weather was really bad, and several of the crew on the aircraft were sick. I'm not sure if that included my father or not. [laughter] So he didn't talk about it very often. He would mention it occasionally. But I know that he chose the Coast Guard and enjoyed his time in the Coast

Guard. He spent a lot of time on a lightship off of New York. But he was just in for four years. He didn't re-up.

MF: Interesting. So, it sounds like a lot of your childhood, and your background had nexus to the water and the sea and such. Coming out of college, did you come straight to NOAA to work, or did you work anywhere else?

LS: When I was looking for positions during my second year of graduate school, I had been applying for a number of different things and was being told I was either overqualified or underqualified and saw a very sort of cryptic position announcement for support in what was called the Gulf Program Office in NOAA. I knew a little bit about NOAA because of NOAA nautical charts and the Weather Service, but I didn't know much more about the agency. But the name on this cryptic note in the career office was somebody that I knew from the year ahead of me in graduate school, somebody that had been a pretty good friend with a number of my housemates. All of my housemates were from the School of Natural Resources. So I reached out to Lee Langstaff – she was a Sea Grant Fellow – and asked for a little bit more information about the position because it was really unclear what they were interested in. We had spent time in a couple of the classes that I was a TA [teaching assistant] for talking about the Gulf War, and this position purported to be something about the Gulf War. At the time, they were looking for basically a program specialist on a policy level to help support the Washington, DC office of what they were calling the Arabian Gulf Program Office within the office of the chief scientist. I was headed out east in a couple of weeks to visit friends, so they decided to have me come down and do an interview. It ended up being an all-day interview where I met with Lee and a couple of the other staff, and I then found myself talking to the special assistant for the NOAA Administrator, who was Commander Francesca Cava, and I then later met Dr. Sylvia Earle and the administrator of NOAA, not really having any context that day for who they were or what level of positions they were in and literally sitting in on a very high-level meeting with Dr. John Robinson, who was leading the Gulf Program Office, and a variety of other staff, including – I think Dave Kennedy may have been on the phone from Seattle and a number of staff talking about the work that NOAA was doing in Kuwait and in the Middle East to support the Kuwaiti meteorological department and the Kuwaiti environmental protection department in trying to understand the effects of the oil fires and the plume from the oil fires. During the course of the day – and realize this is a day where I think I'm just coming in for an interview, and it just keeps going on and on – it's not a question of when we make a decision; it's when you come. So it was a very strange first interview situation to have as a graduate student to suddenly feel like I'm being offered a job, but not necessarily being offered a job, and assumptions being made about when I'm going to show up. The interview literally went all day. I left and went and visited friends and family and then went back to Michigan. I got a call two weeks later on a Monday morning fairly early and asked me if, instead of a job in Washington, DC, I was willing to go to Kuwait. My response was, "I have a valid passport, but I don't speak Arabic. Is that a

problem?” “No, that’s not a problem.” So it then took them about two and a half, three weeks to figure out how they were going to bring me on board because they were looking at contract positions and a couple of other things. I initially came on board as a term appointment. I was in Washington, DC, for three days, basically long enough to get my federal passport and a series of vaccinations. They put me on a plane with an individual from the OAR [Oceanic and Atmospheric Research] labs and two Sun supercomputers to help rebuild the Kuwaiti meteorological department and the Kuwaiti environmental protection department and to run the mesoscale model that was based on the fifteen to twenty mesoscale met stations that NOAA had put up around the oil fields in Kuwait that helped monitor the oil plume. That modeling was really important because it supported the US Air Force and the other allies who were enforcing the no-fly zone over Kuwait, Saudi Arabia, and Iraq. It was a very compressed timeframe, so I had done other things that weren’t necessarily associated with my graduate degree. Although I had done some summer work at Shoals Marine Lab in between my first and second year of graduate school that were related to my graduate work, this was my first professional real job, and I left not knowing how long the job was going to be. I was told the assignment was not less than two weeks and not more than a year. I was overseas for about eleven and a half months, with a short time back at Christmas. So I guess they were right in the long run. But I don’t know that it’s something that I would be willing to take now. In the second Gulf War, there were discussions occurring at the NOAA administrator level about sending me back to Iraq that I found out about [inaudible] –

MF: So there was talk about sending you back for the second Gulf War?

LS: Yes, there was, and I found out about it inadvertently when I was queried about my security clearance and was then able to have some discussions with senior leadership within NOAA about whether or not NOAA actually had a clear mission in the second Gulf War or whether or not it was more appropriate for actually other parts of the Department of Commerce. Unlike Kuwait [inaudible], both of those services between NOAA and EPA [Environmental Protection Agency] and make them both functional again. In Iraq, that wasn't the case. In Iraq, they were focused more on trying to rebuild social fabric, trying to get commerce and other things functional, so there wasn't really a clear mission for NOAA. So I was able to have conversations with leadership that suggested that, one, I wasn't necessarily interested in going, and two, more importantly, I didn't think there was a clear role for NOAA to go. But I was certainly willing to and did help facilitate some of the conversations between State Department and the Department of Commerce about what kinds of things they needed to do and help shift that focus to be more on what we were hearing from State Department was necessary. And I just lost your visual, so I don't know – so do you want to go back to –?

MF: So you arrived in Kuwait to help rebuild the met service. Tell me about your arrival in Kuwait after the war. How long after the war was this?

LS: I arrived in the first week of August of 1991, so not long after the end of the war. Most Kuwaitis were not back and were not back for several months. So I flew on a commercial carrier to London and then London to Bahrain, and then in Bahrain, I boarded a NOAA aircraft along with another individual from NOAA and wasn't sure what to expect. The other guy that was with me was from OAR ARL [Air Resources Laboratory] Lab in Oak Ridge, Tennessee, and he was an atmospheric scientist. We got on this very small aircraft. It was, I think, one of the King Airs.

MF: So it was a NOAA-owned platform.

LS: It was a NOAA-owned aircraft. The pilot was Lieutenant. Commander or Commander Steve (Pave?). I can't remember what his rank was. And I can't remember if there was a second pilot or not. There were just the two of us on the plane plus the gear – the Sun microcomputers and our personal gear. So a small number of seats and windows – relatively small aircraft. It's not very far from Bahrain to Kuwait. It's normally probably about maybe a forty-minute plane trip – I'd have to double-check – in a small aircraft. And within about five minutes after taking up, the temperature in the cabin dropped, and it went gray because the plane was getting coated with droplets of oil from the oil plume. I never talked to the pilot about this in any kind of detail because I didn't really understand as much about aviation at that point. But he was probably flying completely on instruments. But he literally was – we were in the plume, so the cabin filled with a petrochemical smell. It smells a lot like it does when they're laying fresh road tar. It just infused the cabin. It was really eerie because it had been a bright, sunny day in Bahrain, and it just went gray, and you could see – just like you see water on a windshield, you would see these streaks of gray droplets of oil streaming by on the windows. A short time later, we landed in Kuwait on a private part of the – not a private, but a separate part of the runway. The airport was not open for general aviation, which is why we came in on a NOAA aircraft. As we were coming in underneath the oil plume, we could see fires in the distance. We could see the airport was mostly destroyed. In fact, there were fires, I think, not far from the runway if I recall correctly. There was the debris of war everywhere. It was really pretty stark and overwhelming. I got off the plane, and Randy White and Dr. Pendergrass met us in an embassy vehicle, picked us up, and took us to the Kuwait International Hotel, which is the international hotel that was across the street from the embassy. It's where all the reporters stayed when they were reporting on the hostages that had been taken at the American embassy. The hotel was – well, part of the hotel was operational. The top several floors of the building had been burned by the Iraqis and were not available for occupation, but the rest of the hotel was. It was still kind of singed around the edges. There wasn't really anybody there except military personnel, folks associated with the embassy, the NOAA personnel, and then a few media individuals would sort of cycle in and out. One of my very first memories from that trip was on my second day, getting in the embassy vehicle with Dr. Pendergrass and Randy White and heading into the oil fields and looking at the

mesoscale meteorological network that ARL had put up and that the supercomputers were going to support for the modeling [audio cuts out; inaudible]. I had taken my camera, and I asked a few questions [audio cuts out; inaudible] going along on what I was seeing. But the shock of – the complete sensory overload of the oil fires, the smell of the fires, and the plume of oil in the air and the overhead plume just totally overwhelmed me. All I could do for the rest of the day was take photos. I couldn't talk. I just sort of shut down because the only way I could process the images were to take photos and occasionally ask a question. The fires were overwhelming. There were over 749 oil fires from wells all over Kuwait. Some of them were actually pretty close to Kuwait City, and the roads were not necessarily safe because there were munitions and ordnance – bomblets, cluster bombs, that had been scattered and dropped by the US and allies all over the roads. And if you ran over one of those, you'd blow your car up. That had happened. It had happened to reporters. It had happened to others. The other thing that could happen is if you tried to drive through an oil puddle, the sparks from your exhaust could blow your car up, and that had also happened. So it was more than a little scary just to be down there. We were sticking on the roads, and we were going over areas where the NOAA staff had been previously, but it was still very eerie and very otherworldly because, underneath the oil plume, it was dark. It was like being outside on a really dark day in the middle of a squall. The sky was gray with this sort of quilted layer – what looked like a quilted layer of plume that was made of oil droplets that was the semi-combusted oil plumes from all these 749 fires. I think it's 749. So that's one of my earliest memories in Kuwait was just sort of how overwhelming that was – seeing a dingy coating of oil over everything. You could see the damage of war. You would see the top floors of most buildings had been burnt because the Iraqis, as they were trying to leave Kuwait City, had tried to burn the city but forgot that fire burns up. So they started on the top floors, so the top two floors of almost every building would be burnt and not necessarily the rest of the building. And then, on top of that, you just had this gray, oily dinge on everything because the particulates just settled out. Then in the desert, there were the pools of oil near some of these oil wells where you would have uncombusted oil that would just be puddled on the ground, and it would reflect light, and it would look like water, but it was oil. We also got to see the complexities of what it took to put the oil fires out. These fires are extremely hot, and there were two different main fires. There was sort of a regular fire. There were fires from the gas wells. The gas wells were louder, and they created almost like a firestorm right at the wellhead. They were actually the scariest to me of the fires because they just felt uncontrollable when you came up to them. The others were big, loud, messy, but you could see that the firefighters had a pretty routine system for dealing with them and trying to get them out. But the gas fires were scarier because they were so much hotter, so much louder, and much less predictable. So those were some of my earliest memories. My task from the Gulf Program Office was to support our staff in country with the monitoring network that they were putting in place [audio cuts out; inaudible] work with the weather service and the environmental protection department to try and get them capacities to see the modeling work that NOAA and EPA were doing and try and get them to be functional again. And then we also started fairly early on – so I went over in August, and I think

within probably less than two months – without looking at my records, it’s hard to remember – we started planning for an oceanographic expedition. Those were conversations that were being had with the International Oceanographic Commission, NOAA, and a series of other federal agencies, as well as partners in the region. It pretty quickly became apparent that if there was interest in doing something, that somebody had to come up with a ship. The UNOLS [University-National Oceanographic Laboratory System] fleet wasn’t interested or was too expensive. I’m not really sure what the dynamics were there. There are others that would have to answer those questions. But there was an agreement on the part of Dr. Knauss to provide a NOAA ship, and that ship ended up being the *Mount Mitchell*. It took quite a bit of planning to figure out how to get the ship over, how to deal with getting food and scientific supplies in each port, how we were going to deal with swapping scientific personnel in and out, what scientific personnel were going to be involved. So it was a pretty involved effort to pull together initially a six-leg or hundred-day scientific expedition with over 150-some scientists from countries all over the Middle East, including Iraq – I’m sorry, including Iran but not Iraq – and then scientists from Europe as well. The legs were focused on different parts of the assessment of the impacts of the oil spill – and pull all that together, and then actually, in the process of the expedition, actually add a seventh leg that picked up some additional oceanographic information and provided an educational opportunity for students from the University of Oman, and deal with a whole range of challenging diplomatic issues in an area where we didn’t have formal diplomatic relations with Iran. We had fairly fraught and not really much in the way of diplomatic relations with Iraq. We were working through a UN regional organization called ROPME, the Regional Organization for the Protection of Marine Environment. UNEP [UN Environment Programme] has a series of regional organizations around the world, and ROPME is the one that’s for the body of water that’s known both as the Arabian Gulf and the Persian Gulf, depending on who you talk to. So to be apolitical about it, they call it the ROPME Sea Area because that’s neither Arabic or Persian. They were our primary partner and helped facilitate bringing in all of the regional partners. So we worked very closely with ROPME. Then we also – I staffed, and others from NOAA staffed the embassy and served as the environmental officers in the embassy. So I was based out of the embassy in Kuwait, but I spent time in Kuwait, Saudi Arabia, Bahrain, Qatar, Oman, and the United Arab Emirates during the time that I was there.

MF: From the NOAA side of the effort, would you say that there was any one prime mover, or was this very much a team effort?

LS: I’m not sure who the original person was that engaged on the interagency level with the original involvement of NOAA with any interagency effort. If I had to guess, it would have been John Robinson and probably Dr. Knauss. There’s a national response team that’s made up of 16 federal agencies led by the Coast Guard and EPA that responds to all oil spills as well as the variety of other all-hazards incidents. NOAA plays a very strong role within the national response team, and all of the regional response teams, and NOAA provides scientific support to

Coast Guard in all oil spills in coastal waters. NOAA has also been instrumental in doing atmospheric modeling of hazardous elements, including radioactive clouds, that kind of thing, through the Oak Ridge lab. So my guess is, without having actually had the conversations, is that there were conversations at the national response team level being led by NOAA and EPA and that there was a request for assistance, probably, that came in from Kuwait for specific assistance, and NOAA had more of the expertise to deal with modeling the oil plume and then eventually modeling the impacts from the oil fires than EPA did. Because within domestic oil spill response issues, NOAA deals with all oil spills in coastal navigable waterways. EPA deals with terrestrial stuff and non-navigable waterways. So EPA was certainly involved throughout the project, and they had staff that rotated through Kuwait at different points in time. But my understanding is that this initially probably came out of conversations at the national response team. If Dr. Knauss, who was the administrator of NOAA at the time, had not been interested in supporting this effort, I doubt very much it would have gone forward. I don't know if there were other pressures from elsewhere within the federal government at the time to have a proactive engagement on the part of the federal government, but my sense is there probably was. State Department was involved in our activities on a day-to-day basis, and certainly, State Department-sponsored NOAA and provided space for NOAA personnel in Kuwait, and worked with us on all of the advance work for the *Mount Mitchell*. So if State Department hadn't wanted this to happen, it wouldn't have happened. My sense is that it was certainly something that the administrator was very interested in. I don't know if he was the one to start NOAA's engagement. My sense is that probably came through the national response team and through Dr. John Robinson, who at that time was initially the head of what was called NOAA's HAZMAT [Hazardous Materials Response and Assessment] Division within ORCA [Ocean Resources Conservation and Assessment], which was in NOS. That group is now called the Emergency Response Division within the Office of Response and Restoration. But Dave Kennedy, who is still around, could probably provide you some of that context because he took over the leadership of HAZMAT when John Robinson was asked to take over the Gulf Program Office.

MF: So it sounds like there was a fairly coordinated push just for the logistics of getting a ship over there and keeping it supplied, keeping personnel moving in and out. Who was the lead on that?

LS: It was a very coordinated push. It had to be in order to, one, agree that NOAA was going to basically take a year's worth of ship time and reallocate it to something in the Middle East. That was not a decision that was undertaken lightly because all of the efforts – I mean, anybody that's been involved with NOAA ship time knows that that effort is planned out a year-plus in advance, and it involves multiple different constituent offices. So that was taken off the table to send a ship overseas. The staff weren't necessarily – both the wage mariners and the NOAA Corps officers didn't sign up to be sent overseas just after a war. That was kind of scary. That may

have resulted in some shifts in ship personnel. I think it did result in a shift in the initial commanding officer for the ship. Within the Gulf, I did most of the advance work on the ground and the policy support work with ROPME, the Regional Organization for the Protection of Marine Environment, and the different countries in the region about setting up agreements that they would provide in-kind support. So we provided a ship. We asked them to provide scientific personnel of different types of expertise. We asked them to provide dockage, fuel, and food. So we had those agreements loosely in place. And then there were a series of meetings where Commander Cava and Dr. Robinson would come over to Kuwait and work things out. There was a series of things back and forth to try and sort this out. There was a lot of concern about having a NOAA ship operating in Iranian waters when we didn't have diplomatic relations with Iran. That came to a head actually after the ship was in the Gulf and ended up having some emergency conversations with the captain, the officers, and the ship personnel with the administrator of NOAA about whether or not we were going to reflag the vessel as a UN vessel rather than keep an American flag because there had been some concerns about how solid the agreement was with Iran for allowing a ship in Iranian waters. Eventually, what we ended up doing was having Iranian naval attachés on board the vessel for each leg where we were in Iranian waters. That worked fairly well. There were still some issues, and I'm betting that Captain Permenter told you about a couple of those that involved the *Mitchell* itself. We also had some issues with our launches, including one of the launches I was on. But there was a lot of back and forth and a lot of negotiation with the nation-states in the region about participating in an international oceanographic assessment. The paradigm that we were putting in place was very different from the way scientific work had typically been done in the Gulf. We basically said if you and your personnel want to participate in this effort, nobody gets to keep their own data. All of the data collected on the ship in all of the legs will be shared with everyone. So please don't come on board if you're not willing to share your data. That was a very different paradigm for many of the scientists. And the other piece of that was we said we expect all of you to come back and give a presentation a year after we finish the expedition. So we put together a scientific symposium in Kuwait a year later that had senior leadership coming from all of the different countries and many of the different institutes, and a lot of the scientists came back and they presented their studies. But it pushed them to, one, cooperate in a way that they hadn't necessarily typically done, share their data, but also pushed them to actually complete their work and present the information a year later. So there was a lot of advance work to get the ship there. There was a lot of work that went on from leg to leg to try and make sure that the berth that they were going to put the ship in was actually big enough for the ship, that the fuel was actually going to be available, that the food was actually going to show up and that it was the right food, and that personnel were going to be safe on board the ship. There were a whole series of things that happened once the ship was in transit and then was in the region in how we would set stuff up in every port call. Myself and Commander (Todd Baxter?) did all the advance work. Once the ship had left Norfolk and was on the way over, Commander Baxter came over. So the two of us worked as a tandem advance team going into each port, setting up the various



arrangements for in-briefing the new scientific personnel coming in, public receptions that might be happening within that particular port if that was something that the country was interested in, and then out-briefing and trying to make sure that we were getting our personnel out, making sure that we had food and fuel and that kind of thing. John Robinson certainly continued to be involved, and so did Commander Cava in Washington, and they would come back and forth to the region as needed. Dr. Sylvia Earle, who was the NOAA chief scientist at the time, was also very involved, came out on one of the legs of the ship. So they were certainly very involved in working things at the different NOAA levels, as were colleagues from State Department, like Eleanore Raven-Hamilton and others.

MF: As the advance team, did you encounter any issues with any of the ports or any of the local authorities or any other issues in the process?

LS: There were always challenges. In some instances, port personnel at the workman level didn't necessarily know that there was a government ship coming in, didn't necessarily always understand what that meant. Security protocols that would be more typical in a Middle Eastern country are not necessarily what we would expect. In Bahrain, for instance, we had a gentleman who was standing guard at the bottom of the gangplank with a machine gun. The captain was off having dinner with the Bahraini captain of the port – I think we were in Bahrain. Maybe it was Qatar. I don't know, one of the two. The guy with the submachine gun decided he wanted to come on board. I happened to be on deck. And I said, no, you can't come on board – because he wanted to see the bridge. We had a skeleton crew. It was about nine o'clock at night. I was waiting for Captain Permenter to come back. I don't remember where Commander Baxter was, but he didn't happen to be there. He might have been with Captain Permenter. And the guard didn't speak English. I didn't speak Arabic. So it was a bit of a tense conversation. We did end up giving him a very abbreviated tour of the bridge and then got him back off the ship. There were things like that that would happen. We had challenges sometimes finding the materials that we needed. We needed rebar for stakes, for baselines, for some of the work on leg two. We couldn't find rebar anywhere – couldn't find it, couldn't buy it. I reached out to some of [audio cuts out; inaudible] staff and others. They couldn't. So we literally resorted to looking at building sites as we were driving along the road and picking up rebar off the side of the road and hoping nobody was going to ask for it. I could drive in every country except Saudi Arabia. I didn't have to have a letter from the ambassador to stay in any of the hotels except in Saudi Arabia. I had to have a letter from the ambassador saying that while I was unmarried, it was okay for me to be an unaccompanied woman alone in the hotel and that I was not a lady of the night, basically, and that I had official government business. All of the women stayed on one floor. There was actually a guard at the elevator. And they would look at you a little askance when you went down to the lobby. There were unusual circumstances working in a Muslim country as a young woman that were different for me than Commander Baxter as my counterpart. There were instances when he was dealing with food, fuel, logistics, [and] I was

dealing with scientific complement, diplomatic receptions, public affairs stuff, but I am a young, twenty-four, twenty-five-year-old blonde. He's a NOAA Corps officer in uniform, six-foot-something. They want to talk to him. He would say, "No, on that issue, you have to talk to her." There was cognitive dissonance for some of the individuals we dealt with because of that because they weren't used to that. That was fine. He and I had this schtick that worked pretty well most of the time, and we got to be fairly used to it. But there were different challenges. We had medical emergencies with personnel that got injured and trying to make sure that we had facilities on land that could pick them up. Making emergency arrangements to get the vessel cleared to come into port so we could take personnel off, do transfers, that kind of thing. We lost our medical officer at one point on the ship, and I had to arrange with the ambassador to borrow our embassy nurse – or try to borrow our embassy nurse and try to find somebody else. So there were a whole series of things. Just like with any oceanographic expedition, there's always going to be challenges when you're doing it in a series of foreign countries, one of which is only recently out of a war and doesn't necessarily have a whole lot in the way of infrastructure back in place yet. So Kuwait didn't have a lot of infrastructure back in place, and we were in and out of the port of Kuwait. We had two port calls in Kuwait, and that was pretty challenging. But we made it work. The NOAA Corps officers on the ship made it work. Commander Baxter facilitated a lot of things. And there was a lot of figuring out as you go along. If I had known all of the things I would be asked to do in that position, I wouldn't have had the guts to take the job. But I didn't know at the time. I mean, I interviewed for a policy job in Washington, took a job to do desk-level support in Kuwait, and then a couple months later, I'm moving around the Middle East in advance of – well, several months later because the ship came over in January – moving around in advance of the ship coming in, trying to figure out logistics for that. And I hadn't done anything on that level before. I'd worked for a marine lab, so I knew vessel-based logistics on a very small scale. But being young and out of grad school, you just figure it out. NOAA Corps officers have those kinds of skills, so they figure it out.

MF: You mentioned a few times some clashes of culture. Aside from the hotel and an uninvited visitor and the occasional misdirecting communications, are there any that stand out in your mind?

LS: One that probably stands out for a lot of personnel on the ship – so we had mixed quarters for the scientists on board and the vessel personnel. For some of the personnel that came on board from the various countries in the Middle East, this was their first exposure to Western amenities, including Western bathrooms. This is kind of a strange thing, but bathrooms in the Middle East are set up differently, and they don't have a commode. So there were individuals who didn't know really how to use a toilet. It freaked out and disgusted a number of the NOAA staff, understandably, and it was kind of awkward to try and figure out how to have a conversation with our NOAA staff and have a conversation with the scientific complement and figure out how to do signage to try and work through a problem we never expected. Other things

– we figured out that a number of our oceanographers and other scientific personnel got horribly seasick, even when the ship was at the dock – horribly, horribly seasick. They had been doing oceanography, they had been doing other stuff, but they had never been to sea. For many of these people, they had never been to sea. We had one female scientist, who was actually a very senior female scientist, in Kuwait [who] was supposed to be on board. She was concerned she was going to get seasick, which was one thing. But at the last minute, her family – her father decided he was not willing to let her go forward. She had her Ph.D. She had studied in the West. Very respected. But because of her familial status and her concern that her father had about her being unaccompanied on a ship with all of these Westerners, he said no. So we had to scramble to try and figure out how to continue to make sure her work happened without her being able to be on board. We had other challenges. During the leg where we had students on board from the University of Oman, we were out in a skiff and doing CTD casts. We were quite a distance from the *Mitchell*. And we were approached by a vessel from the Iranian Revolutionary Guard at high speed. The wage mariner and the NOAA Corps officer who were on board luckily had both taken off their – well, the NOAA Corps officer had taken off his uniform shirt, and he just had a T-shirt on underneath. And the wage mariner – I don't remember if he still had his khaki work shirt on. Nobody was wearing anything that looked militaristic. We're in one of our open launches. I guess we were in a whaler. It wasn't the Jensen. And we've got four Omani scientific students on board, myself, a wage mariner, and a NOAA Corps officer. We have the ROPME flag. We have an American flag. And we're being approached by a very large Iranian Revolutionary Guard fast boat with individuals with machine guns and bandoliers of bullets across their chest. They're pointing guns at us when they pull up. I had been taking photos before that, and so had somebody else. The cameras got stashed. We were in Iranian waters, so it was appropriate for them to wonder what the hell we were doing. We were trying to get the ship on the radio. Captain Permenter was agitated. And they were trying to get the Iranian naval attaché from wherever he was on the ship up to the bridge, and it was taking some time. So the vessel approached. They can see into the boat. They can see basically everything in the boat except what we had stashed underneath the helm. So we proceeded to have a conversation in pidgin Arabic, Farsi, and English, showing them the CTD cast, showing them the ROPME flag, which shows all of the countries in the region and has words in Arabic and in Farsi, I think, that say ocean. And then trying to listen with one ear to the radio to figure out if they've got the Iranian captain on the bridge yet. When he's finally on the bridge, literally handing them a radio and saying, talk to him – he'll try and sort it out – while they're still pointing guns at us. And in the meantime, my brain's also thinking through, okay, none of us on board have passports. I know approximately where I am and where we're likely to end up. How long is it going to be before the embassy finds out? So there's a lot of things clicking in my head because of my exposure to State Department and the folks that I worked with in State Department that was probably not clicking in the head of the two folks from the ship and the four students. I'm sure they had equally other things going through their mind. We went back and forth. There was a conversation on the radio. They handed the radio back to us.

They wanted to know where we were going, so I think we showed them the chart because we still needed to go further into shore, further into Iranian waters, and we weren't sure that they were going to be copacetic with that. We showed them where we wanted to go, and finally, they said, okay, fine. It's literally shoo. They stayed on station. We left. They're still sitting there with their guns out. We didn't know what the outcome was going to be – if things were okay or they were going to use us for target practice. So they waited for a few minutes, and I'm sure they were doing it deliberately to make us uncomfortable, and then they peeled off and went back on their original course. We continued and did our next CTD cast, and I'm sure that they kept us on surveillance and they were keeping an eye on us because they were not that far. They were a couple miles away, but they could still see us, I think. And then, eventually, they went to where they were going. But that was pretty hair-raising. There was another day we were out, and I think we had a couple of Omani personnel on board. I don't remember if it was the same – it was a different officer from the ship, and I think a different person – and the skiff – we were on a RIB [Rigid Inflatable Boat ] that day, and it ran out of gas through the Straits of Hormuz. The ship was hours away, and dark was coming. We didn't have a whole lot of supplies on board. We didn't have a huge amount of water or food. And we were basically stuck. We basically kept enough gas that we could stay out of the main parts of the Straits of Hormuz, so we weren't going to get run over by tankers that were going by at night – because we're in a little tiny RIB – until the *Mitchell* got close enough that we could rendezvous with the *Mitchell* and get picked up. So, there were some interesting – this is all on one leg. This is the one leg I happened to be on board. I don't know if I was bad luck or what. And then there was the day that we were having lunch in the wardroom on this leg off the coast of Oman, and the fire alarm goes off, and there was no scheduled drill. One of the engineers comes up and says there's a fire in the engine room. I went pale. I'm looking around the wardroom and figuring out where people are, trying to figure out where passports are. I know that the part of the coast that we're on has got really steep cliffs. So we can get to shore in the launches. I'm not concerned that we can't get to the launches. But we're not going to be able to do anything once we get to the launches, and then we're hours – we were extremely distant from the next port, and it was going to be challenging. This was well before the time of solid cell phone coverage. So again, my brain's clicking through how am I going to try to make sure that everybody on board is safe and that I can get word to the appropriate embassies, etc.? Luckily, the guys were able to deal with it. It was an issue with one of the seals. The engine had created some smoke. But they were able to contain it before we all had to depart the ship into our launches. We had trouble finding a couple of staff. There were a couple people that didn't show up to muster areas. So trying to figure out where they were and why they didn't show up. Those are things that – some of that was unusual. The fire certainly wasn't a cultural thing. But the cultural component was trying to figure out then, if it goes to the next step, how do we deal with having however many people we have on board standing in the middle of the Omani desert or standing at the base of a cliff in the Omani desert and trying to get to safety? There's sort of a variety of things that would come up. Some of it was cultural. Some of it was geopolitical. Certainly, some of the issues with Iran were

geopolitical, and Iran using the opportunity to both accept that it had a US ship in and out of Iranian waters and to push the issue about having a US ship in and out of Iranian waters. But other cultural things were actually with the US Navy. In the Navy, white ships are reserved for admirals. The admiral that was active in the Middle East was not happy with the fact there was another white ship in the Gulf, particularly when we were in Bahrain, which was at that time the home port for the Navy for the fleet in that region. The officers in the wardroom were invited to lunch – or most of the wardroom was invited to lunch on the Navy vessel, and there was some very pointed – and the admiral from AOML [Atlantic Oceanographic and Meteorological Laboratory] was out at the time. I think it was Admiral Jeffries. And there were some very pointed barbs going back and forth about who was a bigger admiral, Navy or NOAA. There was definitely some service-related testosterone going back and forth. That would then bleed over and would sometimes complicate things for Commander Baxter and myself, in that NOAA ships are listed in *Jane's Fighting Ships*. So we would tell people that we were a science-based ship, but because the other white ship that belonged to the US government in the region belonged to the Navy, and it belonged to the highest-ranking officer in the Navy, there were some that were aware of that. But they would also look at their reference book – and some of them actually had *Jane's Ships* because one of them was pounding on it with Commander Baxter and I – and that was hard to explain. So then we would pull out things like some of our maps that we were showing where we were doing sampling. Or we would pull out the pictures of the oil fires and the oil spill that were taken by the space shuttle. We would pull out our patch that showed that we had this relationship with the UN organization in the region, which they may or may not have heard about, and try and work our way through it. Eventually, people would either agree or sort of agree to disagree, and we could continue on with what we were doing. But it was an interesting set of challenges. There are things that you don't expect. There is no word in Arabic for seagrass. The word in Arabic for seagrass is the same as the word for marijuana. So trying to explain to the guys in airport customs, or having the facilitator from the embassy try to explain to the guys in airport customs, why two scientists are shipping a cooler out of the country with samples of seagrass in it, which again had whatever the Arabic word for marijuana is or the equivalent, was an interesting conversation. I was only getting it secondhand because the facilitator was on the phone with me, saying what do I do? What's going on? We're having trouble because Dr. Kenworthy and Dr. Fonseca – they have these samples, and they had carefully sealed up their coolers. I don't remember if they made them open – they might have made them open one of the coolers. You don't expect stuff like that. But thank goodness we had access to facilitators from the embassies because they helped us get people out; they helped us get people in – whether it was our own scientists or people from around the region. Because there was just a lot going on. We were shifting the scientific complement every couple weeks on this mission, and that was to engage all the countries in the region and engage the Europeans and to get the work done, but it made things that much more complicated and provided that much more opportunity for confusion and meant potential misunderstanding, cultural or otherwise. I'm not sure if I answered your question.

MF: Absolutely. [laughter] So you mentioned you were doing a lot of shore-based support work, and then you were out on the ship. It seems that as this project and as this effort went on, the scope of your involvement expanded with some frequency. At what point did it become apparent that you might be headed out on the ship?

LS: Without looking back at my record books, I don't remember exactly when we decided that we were going to do a seventh leg. The title of the effort was a 100-day cruise. It actually ended up being – I think it was 120, 115 because of the additional leg and a few other changes in the schedule. Obviously, at some point, we decided to do that. I think part of it was because we hadn't had that much engagement with Oman prior to that. Oman had a pretty young democracy at that point, had just developed their university, had very strong involvement on the part of the sultan of Oman in pushing kids to go to school, both men and women and was interested in some of the science issues. If I had to guess because I can't remember offhand, I think part of it was that they had asked for more involvement, and there was an idea to basically provide some scientific opportunity for a number of the students from the university. And at some point, John, I think, volunteered me to be on board as chief scientist. I was like, why me? Dr. I(Clark?) was still on board. So I was nominally the chief scientist for that leg because we had Dr. Clark as the chief scientist for the whole mission, and then we had additional leads for each of the legs depending on whether it was a biological oceanography leg or if it was the leg where we were looking at shoreline sampling in Saudi Arabia or whatever it might be. So I don't remember exactly how I ended up doing it, but by that point, I had spent enough time on and off the ship. I was certainly amenable to being on the ship for a while. I'd stood watches just like everybody else. I stood 4:00 to 8:00s and enjoyed it. Had a few adventures along the way with some of the fieldwork that were not expected. But that's okay. That's good. It's all a good experience.

MF: Interesting. So you were out as chief scientist. You mentioned getting passports and gathering people during the fire emergency. But what were your other duties as chief scientist?

LS: You're asking me to dig way back in my memory. The stuff that I would do for facilitation prior to every leg – we would do a scientific in-briefing for the group of scientists coming on board, make sure everybody had all of their sampling gear, walk through what the cruise plan was for that particular leg. Certainly, I did that with the students for that leg, as did Dr. Clark. And then if we were going to be doing any kind of reception or public event or press-related events prior to port call, either departure or return, I did all that coordination with the embassies. I was basically chief scientist in name – not entirely in name only, but it was primarily Dr. Clark. But I spent time with the students, basically working with them to get the sampling done, trying to help (inaudible) them along in getting their work done. But the overall scientific planning and the majority of the work was done by Dr. Clark. I think to some extent, Dr. Robinson did it as a lollipop for me at the end of the effort.

MF: Were there any conflicts or any issues – I’m thinking of the Middle Eastern partners – with having a female chief scientist?

LS: No. I think in that instance, we had – we weren’t sure if we were going to get both men and women scientists from University of Oman. We ended up with just men. I’m trying to think. Yeah, I think we ended up with just men for that leg. They were young enough, and the overall culture in Oman had been a little bit more open, so there wasn’t some of the direct conflict or concern that I’d heard raised in other places. And because I was a little bit older than them – not a whole lot older – they just sort of accepted it as authority. In other countries, it wasn’t necessarily quite so easy just as far as some of the coordination stuff, but we had female chief scientists on a number of legs. Dr. Dashell (sp?) was chief scientist on leg two. Dr. Earle came out on – it was either leg three or leg four, I think. That was something that we had been very upfront with personnel about previously, is that we were going to hold to Western norms with men and women working together and men and women working collegially. For some, they had done that in university, and others hadn’t. One of our leads in Kuwait with ROPME was Dr. Faiza al-Yamani, who is now – she’s a senior department head within the Kuwait Institute of Scientific Research. So there were women in very prominent roles in other places. The place where it was probably the most awkward was in Saudi Arabia.

MF: With working on the ship, how would you describe conditions just with the everyday work that you were doing? If I remember correctly, the ship was pressed up to full complement. There was very little free space aboard the ship, plus the addition of scientific vans and so on. What was it like working through your everyday work on the ship with the additional equipment, additional personnel, and so on?

LS: I don’t have the same reference a lot of other people would, in that I hadn’t been on a NOAA ship prior to the *Mitchell*. When I was introduced to the *Mitchell*, it was with the full complement of the additional launches, the additional scientific vans, all of the additional gear. So I could see where in many instances, there would tend to be more space, but I don’t have that to compare to. It was certainly tight quarters. I know it was challenging for many of the staff who shared quarters between our NOAA personnel and some of our scientific complement from the region. There were even some challenges with some of the European scientific complement, I think, at different points in time. The ship’s mess figured out how to label food so that they could address some of the dietary concerns that were coming up, and they did pretty well with that. I was lucky. I was lucky to eat in the wardroom. Not that the food was that much different, but a little bit smaller – although I would often eat in the regular mess as well. Commander Baxter and I knew what would keep the ship happy, and Reese’s peanut butter cups was one of the things that kept the ship happy. Peanut M&M’s was another thing that was good. Commander Baxter and I could get those through the PXs with the Army and/or through the

Marines at the embassy. So you learned to provide things that made the crew and officers a little bit happier and tried to be mindful of the fact that this was a really unusual situation for many of them. It was a very long deployment for many of them without a lot of shore leave. They finally got shore leave in United Arab Emirates, but it was limited. It was only, I think, one evening.

It was kind of tight on the ship. I stayed in sickbay, actually, and hoped that nobody got sick because I don't know where I would have stayed if I hadn't been in sickbay because I don't think there was another room that had – I ended up in sick bay because there wasn't another room that had a female bunk available. So it was tight. Dr. Clark had a pretty cozy science van. If I needed a chocolate fix, I knew I could go to him, and he had a stash of Dove bars in his deep freeze that he had kept, and he would sort of dole out over time. He would go into his science van to sort of escape. So that was good space for him as chief scientist, and occasionally Commander Baxter and I would escape into there if the ship was in port. But when I talked to the scientists who were on board that were doing some of the fish work or who were doing some of the shoreline work or the CTD work, for them, it was a lot like other scientific efforts. They felt pretty comfortable. It was a NOAA ship, or it was a ship similar to what they may have been on if they were American or European scientists. For some of our folks from the region, it was a really exciting time for them because a lot of them had not been able to go out to sea before. Or if they had been out, they'd only been out on dayboats. For many of them, it was the first time they were going out on extended cruises. So that was very exciting for them. Sometimes, it wasn't the way they expected it to be exciting. I mentioned we had challenges with seasickness. One of the things we didn't know was that that was going to be an issue in the Middle East. We went through what would normally be a six-month supply of seasickness medication in less than six weeks. So Commander Baxter and I were then trying to find additional motion sickness medication to get to the ship for the science complement. There were things like that. I'm not sure that some of the folks in the region really understood why there was a gym on board and why some of the crew would go and lift weights. But I think when I would talk to the crew at various points in time, particularly for a couple of the longer legs, they enjoyed the experience, and they enjoyed sort of getting to know people. Even though it was really close quarters, I think people on the whole found it rewarding.

MF: One of our more modern advents, of course – we have internet available twenty-four hours a day on the ship. Folks are able to take care of personal business. They can read the news, generally stay up to date, but also there's a lot more entertainment options. People have personal gear or ships also have movie collections. What sort of activities went on on the ship on an everyday basis in your memory to kind of keep morale? Were there movie nights? Were there any sort of games or events or anything going on?

LS: I am not sure. Because I was working 4:00 to 8:00s, I would have missed a lot of that when I was actually on board. What we focused on was making sure they had food because they made it very clear that they were running on their stomachs. When the ship made one of the port calls



into Kuwait, I did arrange for the officers to have a break and come play volleyball and have a cookout with the Marine security guards at the embassy, and that was to get them a break off the ship. But other than that, I know that there were things that were going on. I think it was a lot of movie nights and stuff. I'm not really sure because I didn't partake of a lot of that when I was on board, mostly because of the shifts that I was working. So you'd actually have to ask some of the others about that. I know for internet, we had the scientific version of internet that existed at the time, which was called (Omnet?) – so very limited capacity for interactions when I was on shore. I don't know that the ship had much in the way of (Omnet?). I know that they had satellite phone. But our communications with the ship were pretty limited when they were at sea, and we were on shore. If we got calls from them, like when they had a medical emergency in the northern Gulf, and they needed to bring somebody in in Kuwait – I'm trying to think how that call went. I think they called in on satellite to the embassy, and then the Marine security guards called me on the radio. When I was in Kuwait, I carried a radio for contact with the embassy and the Marine security guards. So I think that's how the call came in initially, and/or the call came into the port agent, and the port agent may have been the one that contacted the embassy. I can't recall because we had port agents in different ports. We weren't able to use the same one for every port. So it was much more challenging than it is now when you can just pick up your cell phone and send a text or watch a movie or whatever.

MF: Absolutely. So we are coming to the end of our time for today. Should we schedule a time to pick up the rest of the story at possibly a later date?

LS: Sure, we can do that.

MF: Okay. Let's talk offline. For now, thank you very much for your time, and we will get to part two in the near future.

LS: Great. Well, thank you for asking the questions and for asking me to participate.

MF: Of course.

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

Reviewed by Molly Graham 4/15/2023