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IN PARTNERSHIP WITH NOAA HERITAGE AND THE NATIONAL WEATHER SERVICE

AN INTERVIEW WITH LIXION A. AVILA FOR THE NOAA 50th ORAL HISTORY PROJECT

INTERVIEW CONDUCTED BY MOLLY GRAHAM

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TRANSCRIPT BY MOLLY GRAHAM

Molly Graham: This is an oral history interview with Dr. Lixion Avila for the NOAA 50th Oral History Project. The interviewer is Molly Graham. Today is December 14, 2020. It's a remote interview with Dr. Avila in Miami, Florida, and I'm in Scarborough, Maine. I like to start at the beginning. Could you say when and where you were born?

Lixion Avila: I was born in Havana, Cuba, on Thanksgiving in 1950. It was November 25, 1950. I think it was a day before or something like that. But my mother always talked to me about how I was born on Thanksgiving Day. Most of the people tell me, "Oh, Thanksgiving in Cuba?" I say, "Yes, I grew up in an American church, so it was celebrated there."

MG: Well, happy belated birthday.

LA: Thank you.

MG: Now, tell me a little bit more about your family history, starting on your father's side.

LA: My family, I do not know too much about the family history. I just did Ancestry.com a year ago. My father's family is from Spain. Avila, my last name, is as Spanish as you can get. I do not know too much about my mother's family. All I know is that my grandfather came from Eastern Europe to Cuba in the 1900s. I do not know – but in Ancestry, it only shows up a little bit; twenty percent of my heritage is from Eastern Europe. That's on my mother's side.

MG: I don't know much about the immigration history of Cuba. For what reasons were folks immigrating to Cuba from Spain or Eastern Europe in the early 20th century?

LA: Mostly, I think, the people from Spain moved to Cuba – well, Cuba was a Spanish colony since it was discovered in the 1500s. In fact, the Catholic Cathedral was built in the 1500s. So it was a big city. Now, Cuba was very prosperous, had a lot of money. A lot of people from Europe migrated to Cuba for economic reasons because there were opportunities, it was a beautiful country, and there was no cold weather.

MG: Well, tell me a little bit about your parents. How did they meet? What did they do for a living?

LA: Well, I'll tell you what I know. My mother grew up in downtown Havana, and my father grew up on the beach where I was born. They met. I do not know how they met. They married. They had me and then my sister. Unfortunately, my sister passed away a long time ago, in '92. That's how they met. My parents divorced when I was ten. But I always stayed in touch with my mother and my father. So there was no animosity between them and me because of divorce. I was born, and I grew up with love, family. So there's no problem with that.

MG: I think I read somewhere that your father was a cowboy. What did that mean? Did he have a farm?

LA: [laughter] That's a very interesting question. I don't know where you got that, but it's so good. It is so true. One of the jobs – my father had a lot of jobs, but one of them, he used to

bring cattle from Central Cuba to Havana. So he used to ride a horse with a hat like you see in cowboy movies. Yes, it is true. But that's one of the jobs he had. I do remember that when I was a kid.

MG: As a young boy, what did you think of that? Did you look up to your father?

LA: I love my father, and I love my mother. I was always having a good time with them. Yes.

MG: I read that when your parents separated, they lived nearby. So were you able to see them both equally?

LA: Oh, yeah. As I said, I never had any problems with them at all. I just grew up. My father remarried. In fact, his wife was like a sister to me. She was the one who took care of my mother until my mother passed away because there was no – they married, but their divorce has nothing to do with their marriage. It was some years later.

MG: Can you tell me a little bit more about your mother and what kind of person she was? I read that she was a seamstress.

LA: She was a seamstress. She was very happy. She had an Eastern European look; she was very blonde with blue eyes. My father was the opposite. He was the typical Cuban: brunette, light-skinned. My mother was very happy. My house was always packed with people because people came to get all the dresses and things. She was always singing, and it was happy. However, she didn't know how to cook at all. There was a family joke – she had a lot of brothers and sisters. The three older sisters came, and my mother would do the dresses for them, and they cooked. They always made fun of my mother because she didn't know how to cook. The other ones were excellent.

MG: I want to hear more about your experience growing up in Cuba, but first, can you tell me a bit more about Cuba's history? It's got such a rich cultural history.

LA: Well, I grew up in a beautiful country, next to the beach. That's all I did when I was a kid. Of course, I think because of that, I was able to look at the sky all the time, the waves and the rain. Ever since I was a kid, I was interested in changes in weather, extreme weather. If it was too hot, too cold, rain – hurricanes, of course, was my favorite topic. I had a happy childhood. I had a little bit of trouble after 1959 when the system changed, and it wasn't as good for me. [Editor's Note: Dr. Avila is referring to the Cuban Revolution, which was an armed revolt led by Fidel Castro's 26th of July Movement against President Fulgencio Batista's military dictatorship. The revolution began in July 1953 and lasted until the rebels replaced Batista with a socialist state on January 1, 1959.] Not that I wasn't happy, but there was a lot of trouble in Cuba, turmoil when Castro's revolution came. They put my father in jail. I'd have to go to visit him in jail. It wasn't a good time. But when you're twelve, thirteen, you don't know too much. I do not know how I survived that. My father was released. He was innocent. They didn't find any reason. He was never against anything. He was too much of a coward.

MG: Can you say a little more about your experience of the Cuban Revolution? What happened? What impacts did it have on you and the people living in Cuba at the time?

LA: Well, it depends upon who you ask. Some people benefited from the revolution, and some people did not. I was one of the cases that my family was not a rich family, but it was a middle-class family. Most of the properties were confiscated and [imprisoned]. Most of my mother's family immigrated to the United States in the '60s. I couldn't come. First, my mother never let me immigrate with them. Then, I was of military age, and I couldn't come. It was very difficult for some people, and it was beneficial for other people, like every issue in the world.

MG: For what reasons was your father jailed?

LA: They accused him of conspiring against the Cuban government. But that wasn't true. They released him because he never did anything. He didn't do anything.

MG: Did that impact your feelings about Castro that your father had been put in jail for no reason?

LA: Well, actually, even before that, I was never an advocate of Castro. In all the years in Cuba, I never belonged to any communist organizations or revolutionary — what they call — organizations. That was a little bit of trouble for me in school. It wasn't as good as other people had it. I did not, but I was able to manage some of that. But I was never involved with the government.

MG: Tell me a little bit about the neighborhood where you grew up. You said it was near the beach?

LA: Yes, it's a small town. It was founded by – the most important thing was that it was founded by an American family from Michigan that moved down there in 1900. They built an Episcopal Church where I grew up, and everything revolved around that church, I suppose back then. I don't know. That's what I was told. The house I grew up in – I always laugh because, in the back, there was a big farm, and there were a lot of avocado trees that were planted aligned, one to the other. Then I found out that it belonged to an American family before, and I know why the trees were properly aligned. The Cuban trees grow up whatever; you throw a seed, and they come up. But it was a very small town, with a lot of educated people. It was a fun place. As I said, everything revolved around that Episcopal Church. There was a Catholic Church, too. It was a typical town. I used to go to the beach as a kid in the morning – all day. I didn't need any water or anything. Just be all day on the beach. Now, I go to the beach, and one hour later, I want to come home. I'm old. [laughter]

MG: You mentioned the hurricane activity earlier. I was curious about what is the first hurricane you remember. Would it have been Hurricane Donna in 1960 or something earlier?

LA: Donna, you got it. You did your homework. My goodness. Donna was one of the things I remember clearly. I do remember something in 1958 when I was seven years old, but it was just the word "hurricane." But Donna, I saw the wind blowing on the north coast of Cuba.

Remember, I was trying to see. Yes, that was the first hurricane, Donna. But I was always interested in weather since that time.

MG: Tell me a little bit more about that. How did that manifest itself, your interest in weather?

LA: This is a good question. My town had a river, and I was always looking at the river to see the rain in the afternoon. I always was asking the farmers and the sailors because they knew about the weather. It's interesting. Some of the farmers say to me, "Do you see those hills over there? If the green of the grass is very bright, it will rain this afternoon." I'll say, "Well, who knows?" But then I realized that it was the reflection of the sun and moisture in the atmosphere that makes it look greener. So they didn't know the reason, but I learned in school later that when you have moisture, the color changes. I was always asking the farmers, the sailors, and the fisherman because they knew the weather. I always wanted a Hurricane, and they were angry at me because I wanted a hurricane. They [said], "I'm going to tie you to an electrical pole, and you'll see what a hurricane is," of course. But then it got me where I got. I really liked hurricanes.

MG: Were there any hurricanes while you were growing up that were particularly devastating to Cuba?

LA: 1963, Hurricane Flora, but I did not see it. It was in the eastern part of Cuba, a region that I have never been to. But it was a devastating hurricane. It killed like [seven] thousand people. I do remember. I've seen documentaries and all that. Yes.

MG: I read somewhere that during Hurricane Flora, you told your mother you were going to go out fishing during the hurricane. Did you end up doing that?

LA: Yes, I used to go. I used to say [that] in every hurricane. Every hurricane, I wanted to go out to the ocean and see the waves. I do remember the red snapper – when you have big waves in a hurricane, somehow the red snapper came with the waves, and they were splashing on the rocks. I wanted to get buckets of red snapper when I was a kid. Yes, that is true.

MG: Your mother has talked about how you were born to be a meteorologist. So I was curious what she saw in you and if she supported your interests in weather.

LA: Oh, yes. Everybody supported my interest. Now, how did she come up with that idea? I don't know. She was a storyteller, perhaps. Who knows? But yes, they support me, everybody in the family.

MG: Somewhere, you said that hurricanes are a part of your soul. Did you feel that then as a child?

LA: Yes. Correct. I wanted to know about hurricanes. I love the way the wind was blowing and the rain. Of course, I never saw a powerful hurricane until Andrew in 1992 after I'd been forecasting – I mean, the real thing. I was looking at tropical storms and rain.

MG: Hurricane Andrew was a real turning point. We'll talk more about it in a bit. I wanted to ask if you remembered Hurricane Alma in 1966.

LA: Yes, I do. That was my first real hurricane. It was Sunday. It was raining very badly in Cuba. Then I heard there was something forming from people. Then I went to high school the next day, and I read in the newspaper, and I quit. I left the class, and I went home just to be with the farmers and the fishing to know what they told me. Wednesday morning, when the hurricane hit, my mother woke me up and said, "You want to see a hurricane? You can see one." I was scared for a little moment because the wind was blowing. But ten minutes later, I escaped. I was in the middle of the street [inaudible], but I did it. I was fifteen.

MG: When did you start to formally shape your education towards learning about science so that you could study hurricanes and meteorology later on as well?

LA: I think my love for hurricanes was when I was in third grade, there was a reading book. They have two histories in Spanish, of course. One was the conversation between two farmers. Their names were [inaudible] the language. The name of one in Spanish wouldn't make sense if I tell you, but the name of one was "I don't care," and the name of the other was "Prudence." So they talked to each other about what to do with a hurricane, and the second section of that was the arrival of the hurricane. The description from them was that all night the birds were flying away, the low clouds moving fast, and the rain began, and the description of the hurricane. That was when I began to think about what a hurricane is. But now, my real meteorology, my real formal class was the 18th of November 1968. That was my first meteorology official class at the University of Havana.

MG: Was that your freshman year?

LA: That was the first year of the university. Yes. The education is a little bit different.

MG: Tell me how it's different.

LA: Well, here you have the high school. There, you have the equivalent to high school, which is six years. Yes, three and three. Then when you finish high school, you enter the university. That was when I finished high school in '68, in the late summer of '68. Then I began in meteorology. I was accepted to the meteorology school. I still don't know how they did it, but they did it.

MG: What do you mean? Because you weren't a great student in high school?

LA: No. Actually, I was. I shouldn't say this, but I was a good student. But back then, it was very tough if you were not involved in the government. You needed to be really involved in politics and in the government to be able, to [be] allowed to go to the university.

MG: What opportunities were there for teenagers to be involved in the government?

LA: You have to belong to their organizations. You have to do a lot of things, which I wasn't

involved in. Most of the time, it was because I didn't want to do anything except go fishing and swimming and have fun, to be honest with you.

MG: Did you face any kind of discrimination because you weren't politically involved?

LA: Oh, yes. Yes, definitely there was. But I never paid too much attention. I was sort of naïve. I was living in a bubble. Most of the things I realize now that I'm an old man, and you think. But back then, I was not even involved in anything, but I was allowed to go. Somehow, it happened. It wasn't easy.

MG: Did you consider any other colleges or universities at that point?

LA: Well, when I finished high school, I do remember there were – you finished school, and then you have to take a test, similar to here, the SAT or all those things. There were like a thousand students to finish that; only two-hundred passed that test with the grades to continue. I got a couple of options to study hydrology and engineering. Somehow, at that very moment, I was so lucky that I heard about this special United Nations class of the Cuban Met Service, and I enrolled.

MG: Was that at the University of Havana?

LA: Okay. That class took place at the Met Service. It was not directly linked to the University of Havana, but it was. It was a university education. It was mostly a special course dictated by the United Nations. Professors from the university came to teach us math. It was really good because every morning we have classes. In the afternoon, we have labs, where I begin to work taking observations, doing the real weather. This was a very good base for meteorology.

MG: I thought the University of Havana was where the Cuban Institute of Meteorology was based.

LA: No. Well, I do not know now. Back then, it was part of the Academy of Sciences, but it was linked to the university. When you get a degree from there, it is equivalent to a university degree, but I do not know exactly. Now, they have a very good school also, but they do it through geography or something. I'm not quite sure now how that works.

MG: I think a relationship exists now, but did it exist then with the National Hurricane Center in Miami and the University of Havana?

LA: No, not directly with the University of Havana. The only connection of the Hurricane Center with Cuba was the Cuban Med Service, where I [was]. The school was the Met Service. That has always existed, before Castro, after Castro, and even today. I always tell the people that the old-timers told me – even it's written here – even during the missile crisis from the Russians, the observation, the data, the communication, meteorology, weather communication of the two countries never stopped.

MG: Can you tell me, from your perspective, your memories of the Cuban Missile Crisis? I've interviewed a number of people about that time period, but never someone who was in Cuba at the time.

LA: I remember clearly. It was October, raining, no hurricanes that year; I was disappointed. But October can be a very beautiful month in Cuba with the sun [and] dry, or it could be wet. This was very wet. I do remember all the Russian tanks back and forth in my hometown that destroyed the entire road because of the thing. I do remember clearly the Russians – very young professionals – stopping at the little bar next to my house. They swapped their watches for a bottle of rum. These are little things that have nothing to do with science, but they're things that I remember. They were natural, lovely people. They were just like any other soldier to go to another country.

MG: Did you get a sense that we were on the brink of a nuclear attack?

LA: Since I live next to the beach, you just go to the beach and see all the American vessels and the planes flying. But I was eleven years old. I knew what was going on, but I could not measure the degree of danger that exists. No.

MG: Getting back to college, just tell me a little bit more about the classes you were taking, the technology you were learning about, things like that.

LA: Well, a lot of math, a lot of physics, and a lot of meteorology classes. But the important part was the labs. We had labs every afternoon. It was really theoretical. It was a good class, but, of course – well, maybe you can ask me later how I compared that to the University of Miami [UM], which is a very interesting story – better than that. But yes, it was high-level math, physics, and practical meteorology, which I took advantage of because that's what I want.

MG: What was your life outside of classes like?

LA: I was not a troublemaker. I was just a kid. I was just fishing. If you know many things about me, there's a question that will come. You'll ask me about ballet. Have you seen that?

MG: Yes.

LA: I used to go to the ballet so often because ballet in Cuba is like going to a football game here. Everybody goes to ballet – nothing to do with the Russians. It has to do because the Cuban people love ballet, and it's part of the culture. I used to go all the time if I had the opportunity if I didn't have classes or work or something.

MG: Well, tell me a little bit more about the ballet, what you liked about it, and how it became such a huge part of your life.

LA: It's part of Cuba. It's like baseball. It's part of you. My mother took me. I was fascinated by how the people jump, how beautiful the ballerinas are. Still, I think the closest to heaven that exists in the world is a ballerina. I can tell you exactly when – I don't know if I'm stepping

ahead of the story, but I can tell you exactly when I changed my life – because what I loved the most was hurricanes – when I betrayed hurricanes for ballet, and that was October 1998. There was a ballet festival in Havana, and hurricane Mitch formed in the Caribbean. I had my annual leave to go to the ballet festival. But the hurricane of my dreams had formed in the Caribbean. There hasn't been something like that. I was waiting all my career for that. I issued one of the first advisories. I forecasted the hurricane for a few days, but there was a moment that I took my annual leave, and I [had to] decide, "Should I stay? Or should I go to Cuba?" Well, you know the answer. I went to Cuba for ballet. Luckily, Mitch didn't do what I thought it was going to do. But was the point of – I guess it's because I had done so much in hurricanes in my life that I wanted to see something different.

MG: Tell me a little bit about what happened after graduation. Did you continue to work with the Met Service in Cuba for a couple of years?

LA: Well, that was a little bit of trouble in there. Some of the stories people don't know. But the graduation for everybody was October '73. On the day of the graduation, they told me, "You cannot graduate because you're not Communist." That was back then in the '70s. Things are not like that [now], I don't think. But they told me, "You cannot graduate." I said, "Okay," and they removed me from the position I wanted to be working. They didn't know what they did. They put me on the satellite section, which nobody wanted to be there. Luckily, there was a Russian lady, an old lady, Galina Isaeva, and she trained me so much in satellite meteorology and was a wonderful lady. She loved to go to the ballet. She loved to go to the opera. There we go. There's Lixion with the ballet, with the opera, with the music, and satellite meteorology. Obviously, there was a reason I was there. But eventually, somehow without being graduated – actually, I finished all the exams; I did everything. All I didn't do was go into the ceremony and pick up the diploma. Everything else was there. Eventually, they put me back in the department that I wanted to work in, and the director of the Met Service in Cuba was remarkably good to me, in the sense that he knew that I was a good employee. I never called in sick. I was always working.

MG: You mentioned the old-timers you worked with. Can you talk a little bit more about them and the stories they may have shared with you?

LA: Here in the United States or in Cuba?

MG: Were there ones you worked with in Cuba?

LA: Well, I learned from the old-timers in Cuba. I was very young. I was the youngest in the class. I was able to learn. One of the old-timers was one of the best that they had. He happened to go to high school with my father, and he used to go fishing, too. So he really helped me from the initial steps. But the biggest fortune I have was in the United States. Perhaps you want to go in chronological order; I'm not sure. But when I worked at the Hurricane Center, I was the youngest specialist at the time. I worked with John Hope from the Weather Channel later on, with Gil Clark, Hal Gerrish. Most of those people passed away by now, but they trained me. Really, this is where my meteorology – I learned meteorology really in the United States.

MG: Before we get there, is there anything we're missing in those years between finishing college and coming to the United States?

LA: No, life was pretty different. I was always a happy person, loved by my family, suffering through the problems of the system. But I guess they were not unique to me; this is a problem that happened to many people. Then, the United States. But no, there is nothing significant except all I did was to go to the beach, work, track hurricanes, and have the life of a young person.

MG: I think I read that you weren't able to continue your studies in Cuba. Were you trying to? Did you want to?

LA: I didn't study anymore in Cuba.

MG: I know. But did you want to or plan to?

LA: I was already on the top of the meteorology class. Well, they could have sent you to Russia or somewhere. But I didn't want to go to Russia to start meteorology. The Russians came to Cuba. They didn't even know what a hurricane was. They thought that the tropical winds were warm fronts. So why am I going to go to Russia to learn meteorology when the Cubans were much better? Remember, the first advisory warnings ever written were done in Cuba. I prefer to learn from the Cubans. But they won't let me go to Russia anyway because I was not involved in the government. But I took one class here, one class there, a little class in Russia, a little class of English. But it was in the school, two hours here or there, but nothing formal after that. No.

MG: So what went into the decision to immigrate to the United States? Talk to me about how that all happened.

LA: To ask why you want to leave Cuba and come to the United States, I think that's the dream of half of the world to move to the United States. So it was my dream, too. Cuba had a lot of influence in the United States. I was in the United States when I was five years old. My family – my father, my mother – we came to the States with some friends, and we lived like six months here. I mean, vacation. That, plus the influence of the church – I grew up in the [inaudible] Anglican Church. Besides, living in Cuba was miserable for me. I always tell funny stories, which you can add. Cuba had a lot of movie theaters, [inaudible] movie theaters with two movies. In one, you saw an American movie, and the other one was a Russian movie. Well, there was a line to get into the American movie. No people would go to the Russian movie. Sometimes, the Russian movie had a better quality than the American movie. But we grew up with an American – Cuba was very Americanized. The love for America was there all the time. So I had a lot of my relatives – actually, most of my relatives were in the United States: my grandmother, my mother's mother. So I went to the American Embassy, got my visa, and they accepted me. I came legally to the United States.

MG: In what areas had your family members settled in America?

LA: Most of my family had a hardware store, some plumbing supplies in Cuba. That's basically my mother's side that settled in the United States. They're all spread out. Some people live in North Carolina. Some of them live in New Jersey, and most of them live in Miami. I would say that's most of what they do. But I'm the only one with a PhD. Actually, no, there's another cousin who lives in New York.

MG: When you arrived, you came to South Florida. Did you stay with your family there?

LA: I stayed with my family originally. Then I stayed with friends. Then I made my own life, like everybody.

MG: What year did you arrive?

LA: Early 1980. Very early, first few days of January.

MG: Tell me a little bit about those first couple of years acclimating to the culture and living in Florida.

LA: I didn't have to – it was fantastic from day one. The same love that I had in Cuba, I had in the United States – same family, same friends, people from my hometown. I think the most important thing is that by September 1st, I was already enrolled in the master's program at the University of Miami. That was a great success that nobody could ever expect that that could happen to me.

MG: Can you walk me through that year? I know you had a number of odd jobs before you were enrolled. You were doing construction, selling plumbing supplies, and doing some bartending.

LA: Yes, I was living with my aunt. I was working in plumbing supply with one of my uncles, one of my mother's brothers. He studied math in Cuba. His two kids here didn't go to school; they preferred to do business, which is okay. So he [inaudible]. I had to carry all those bathtubs and things to the truck. He was the owner. He said, "Just come to my office," and we started talking about math and physics. That's what he wanted because he couldn't talk to his kids, my cousins, about that. They were excellent kids. They forced me to speak English, the kids. They said, "You have to." It was a very good experience. I was living with my aunt, and I didn't want to bother her. I wanted to get a house. That's when I used to go to the beach, and that's when I found the University of Miami. That's where I saw the School of Meteorology there. They were playing volleyball there on the beach. One of the professors came to me and said, "What are you doing looking at -?" I didn't know who that person was. "Why are you looking at those clouds?" I said, "Well, I was a meteorologist in Cuba." I didn't even know it was the meteorology school. He said, "Why don't you come to study?" I said, "I don't have any money." He said, "Well, why don't you come next week for an interview?" So my aunt ironed my shirt and all that. I went to UM, and the faculty interviewed me. They said, "If you pass the English test, you will begin September 1st." Well, I went to UM, passed the English test – I don't know how, but I did it – and I was accepted. My life changed completely. Well, the Hurricane Center's Neil Frank gave me a letter of recommendation to enter the university. His

heart was so good. He gave me a letter because I went to the Hurricane Center to visit one day just to see, and I told him what I was. They accepted me. Immediately, I began to work at the university. I was the connection between the hurricane center and the university, bringing the map every day for the map discussions. I met all the specialists. I was very lucky, very lucky.

MG: Weren't you also translating the advisories?

LA: One day, Neil Frank said to me, "Do you want to work for me?" I thought it was free or something. I do remember he said to me, "Do you want to translate advisories to radio on TV in Spanish. I'll give you twenty dollars an hour." I almost fainted in there because that was so good in the '80s. Besides, I was going to do something that I love. I did that for several years while I was going to the university. One thing came to the other and the other. Dr. Bill Gray from Colorado State [University] was looking for somebody who can help them to collect [inaudible] some data and put it in a computer, so he can do his seasonal forecast. Well, Neil Frank and another forecaster recommended me, so I did that for Bill, and Bill and I became very good friends. So it was all good. I mean, there are no bad things in my life. It was really good. The story goes on and on through my career. It was lucky. There was pure luck in my career. There were many kids just like me that – well, back then, I was no kid – that were trying, but they were not at the right place at the right moment, and I got it. So that was good.

MG: The story you tell about the meteorologists playing volleyball on the beach, was that around the time of the 1980 AMS [American Meteorological Society] meeting?

LA: I went to the AMS meeting when I was already at the university. The AMS meeting was in November. Normally, it was in December back then. One of my professors, Dr. Mariano Estoque, one of the meteorology professors from UM, took me to that meeting. That's why I'm in that picture. He said, "You need to come with me to the meeting." Then I met all these people. I do remember the director of HRD [Hurricane Research Division] at the time. When I talked to them – I'm not going to say too many good things about me, but I remember one of the things that stick in my head. He told me when I retired, "The first day you came, you had 'success' written on your forehead." I was just an enthusiastic kid. That's all it was.

MG: Yes, I think you met T. N. Krishnamurti there and just some other heavy-hitters in the meteorology world.

LA: Yes. Krishnamurti and Stan Rosenthal and Bob Burpee, and all the big people were there. That was the beginning of – that was my first AMS meeting.

MG: I know that your graduate education and your career with the Hurricane Center overlapped a little bit, so I just want to understand better how your education unfolded, your master's and PhD.

LA: Well, no. The University of Miami gave me an assistantship. So they paid for my education, and they gave me a salary. But the professors knew that I have some skills. So they gave me extra work, and they gave me extra money. Bill Gray paid me a hundred dollars a week. Once in a while, I did some work as a bartender in private parties, not often, but I did that

[for] a couple of years because I needed to establish myself. But I was making money at the University of Miami. In the summer, they pay double. In all the universities, that's the way – not [just] me, to all the students that were there. I was very lucky because the main group was one lady from England, Cathy Griffith, one gentleman from Ireland, one French, and three Germans. Of course, I was the only Cuban/Latin. I was so embarrassed because those Germans came to the class, and they finished – they called it the PhD factory. They finished in two and a half years, three years. They were bright. I asked them, "Why are you guys so smart?" They said, "Because the ones that are not smart stay in Germany." [laughter] It was a great, great group, and we're still friends. In fact, one of the German students lives in Boulder, and she became the first German astronaut. That was a long time ago.

MG: What was your role at the Hurricane Center while you were still in school? Did it change when you graduated in '84?

LA: Well, no. With the Hurricane Center, what I did was I collected the data for Bill Gray. I was the one who brought all the maps from the hurricane center. Back then, technology is not like today. We only had one five-hundred millibar forecast map a day. It's not like today. I used to bring things from the Hurricane Center to the map room of the university. I was sometimes helping with the forecaster if they needed to call some countries in Spanish. I worked for Charlie (Newman?) a little bit as a contractor.

MG: Who was the director of the Hurricane Center at this time?

LA: Neil Frank.

MG: Right.

LA: He was the one who hired me first. The deputy was Bob Sheets.

MG: Right. Can you tell me a little more about these guys? They are names I hear a lot. What were your impressions of them?

LA: Well, I always think that — well, I can even go back to a previous director, which I always admire. I would say the father of American hurricanes is Gordon Dunn. He was the director of the Hurricane Center for many, many years. When he retired, he became the tropical meteorology/hurricane liaison with the WMO, World Meteorological Organization, and he had to travel all over the world, the Caribbean region. I do remember I was still in Cuba, and he went to Cuba. I had to wait all day just to see him. He came, and I wanted to hear what he said when they looked at the map. There was a disturbance or something, and he said, "That will never develop," and it never developed. Later on, I finished with Gordon Dunn. I do remember I was working at the Hurricane Center. We talked about Havana. He used to come every day with little shorts and a (Coke?). I was working, trying to write the advisor. He was the god of tropical meteorology in the United States. He came to me and said, "Hey, Lixion, do you think you know which way the hurricane is going?" I said, "Well, I'm trying." He said, "Well, they do whatever they want to." It was the joke, of course, but it was a symbol of affection and sympathy for me. But Neil Frank really made the Hurricane Center shine. He created all these

liaisons. He created the Hurricane Committee, which is when all the Caribbean members get together, meet, and have a hurricane plan. He was the one who started to connect with the emergency managers for the first time. He was a wonderful, wonderful director. Then Bob Sheets continued, followed the same. Then, of course, the rest of them – I worked for eight directors. I worked for eight directors. Actually, I was very lucky because they always treat me very well. They always really were wonderful people to me.

MG: What year were you hired as a forecaster?

LA: In 1987. I was a forecaster in TAFB [Tropical Analysis & Forecast Branch]; it's the analysis section. I was working with Max Mayfield at the time. Then Ed Rapoport came later. Yes, I began in '87. But one year later, I became a junior – back then, it was called junior hurricane specialist, which I do remember. They said, "Well, you cannot issue any watches or warnings." That was the rule. Well, on my first day at work, I was alone there, and a storm formed in the Gulf, and I had to issue warnings for the Gulf of Mexico. But it was good. That was really good. That's when I began, officially [inaudible]. I was getting paid as a student but not [as] a federal employee. It was like a contractor. But this was '87 when I began.

MG: How else did your job change?

LA: In terms of the things I need to do, or the technology changes?

MG: Both.

LA: Technology – these kids today, they have it made day. I used to write an advisory, and I said, "I don't even know how I did that twenty-five years ago, or thirty years ago. The technology today – I mean, the satellite picture, I had to get it from a little fax machine, one picture at a time. We didn't have any of these loops. But things became a little more – it was wonderful, but at the time, it was the top of the technology during those days. The math was done by hand; now it's done by computer, the satellite pictures, the numerical weather prediction, the big jump of numerical weather prediction. That's how I went through all the steps, from then basically until April this year.

MG: Can you tell me how your office was impacted by the Weather Service's Modernization and Restructuring [MAR]?

LA: I do remember the modernization in the '90s. I knew there were a lot of things behind the scenes with the organization. But, of course, I was not a manager; I was a forecaster, but I watched things happen. I do remember Dr. [Elbert "Joe"] Friday. He was the director of the Weather Service. He and [Ron] McPherson, who was [inaudible]; he was the head of there. They were always – but I never discussed [inaudible], but I've heard [about] a lot of turmoil that existed, which will always exist in any organization. But I was not part of the organization – I heard, but I didn't know. I didn't have any power or any decision-making. I was not a manager.

MG: Were there personnel changes made to the Hurricane Center or technologies upgraded during this time?

LA: There was. Well, the Doppler radar came during the organization. I went to Oklahoma with Max Mayfield for a month to learn how to use that radar. So there were a lot of improvements. I do remember the McIDAS system, the way you display the satellite pictures, first came. I was very lucky because Chris Velden from the University of Wisconsin came to the Hurricane Center to train the people that I was the first one to be trained by him – they always remind me of that. We became very good friends; we still are. I was helping the old-timers. It's like the new kids did with me. Now, there's one new guy and one new specialist at the Hurricane Center that's called David Zelinsky, very young, and I always tell him that I was going to write a book, saying I was Zelinsky once. Because what he does is train and tell us all the new technology. That's what I did back then. It was very, very interesting.

MG: One thing I forgot to ask about – earlier, when you were talking about your education in Cuba, you were comparing it to your education in Miami, saying there were lots of differences. So I wanted to circle back to that and ask what you meant by that.

LA: Well, one thing, for example, the education in Cuba had a lot of theoretical math and physics, but nothing like when I went to the University of Miami, how I was able to – it was a different type of education. I learned much more here. I do not know how to explain, but there was more to solve this equation. But here, you solve the equation for a purpose, such as forecasting the temperature. There, you solved the equation, and you did it, but you didn't get a temperature at the end; you just solved the equation. Here, it was more devoted to practical purposes. That was my feeling. I had professors that told me during the exams that they were very impressed how I was able to describe the fluid dynamics with simple words instead of the equations to understand the [inaudible]. I was very lucky. They helped me a lot at the University of Miami. I had one professor. I didn't get a good grade in geophysical fluid dynamics [GFD] one time, and Professor Lee Branscome – he was [Carl-Gustaf] Rossby Prize at MIT [Massachusetts Institute of Technology. He was the GFD professor. He said, "I want you to come every Thursday to my office, and I'm going to help you." Well, then I got an A the next time, and he's still a friend of mine. I needed help. There was a gap. Remember, there was a gap between '73 and '80, and it's a big jump in education, but I did it.

MG: What made you want to go on for your PhD, which you earned in 1993?

LA: The University of Miami works in a way that if you are a good student while you're doing your master's if you pass your comprehensive exam, they tell you, "Well, you can go directly to your PhD." But A PhD takes like five years, and I wanted to have a diploma from the United States because I learned that you never know what's going to come in the future. So I decided to get my master's first. If I was accepted, okay. Here comes good luck again. When I defended my master's thesis, it was about dust and aerosols from the Gobi Desert in Asia going to the Hawaiian Islands – nothing to do with hurricanes, but it was a very interesting project. I [did] a lot of meteorology and a lot of things, and I did it. Well, lucky Lixion, that day, to my defense, the chairman of the department, Fritz [inaudible], a German guy, came to my defense. When I finished, he stood up and said, "This is the kind of research and work I want to see in my department. Lixion, here is a case of champagne." Well, if the chairman says that, the whole committee said, "We can let him go to the PhD program after that." So I finished the master's,

and then I enrolled in the PhD. It took me longer to finish because I began to work at the Hurricane Center. I had all my classes, all my credits, but I had to work on the dissertation. I was ready to defend in '92, and Andrew came, and everything was postponed for basically one year. But I did it.

MG: Can you talk more about that? What happened with Hurricane Andrew? How did that year unfold?

LA: Well, it's not only me. Everybody, everything stopped here in Miami for a long time. It was sort of like COVID now, but in Miami just for Andrew. Well, I was working at the Hurricane Center. Remember, I was the one who called Bob Sheets at five in the morning that Saturday to tell them that Andrew became a hurricane. He said, "Don't issue any warnings. I'm ready." I just finished my midnight shift, and then he came in and said, "Would you stay with me a whole day?" After midnight, I had to stay the whole day. That was Saturday. Then I [had] Sunday off, and I had to go to work on Sunday, and then go back to work Monday to my day shift. I had to sleep in there because of Andrew. I was working Andrew. I was writing the advisories. I was a senior hurricane specialist back then. I was working on my dissertation that hurricane season, and I was ready to defend, but everything – the university stopped basically working, so everything was postponed. It was not just my case; it was everybody.

MG: Can you talk a little bit more about Hurricane Andrew? What did you see on the radar? What was that experience like?

LA: That was a week of midnights that I had. That's the schedule, and I was working. The system never tried to intensify. It was very weak, and there was a moment that we almost terminated the advisories, but Bob Sheet said, "Let's wait for one more cycle." Then it began to get a little better. A plane, a reconnaissance plane, flew and found low pressures and hurricaneforce winds, and I had to make it a hurricane. That was already turning and becoming a threat to Florida. That was Saturday morning at five AM. You can just go to the record, and the advisory is there when I made it a hurricane, Andrew.

MG: What were some of the characteristics of this storm when it arrived?

LA: It was fast-moving. It was like a little tornado. It was a very small system, very intense. It destroyed everything. All I remember is it was very difficult to get to my house because all the trees were down, and I couldn't even find the road to come to my house after Andrew. That was a very bad experience.

MG: Can you talk more about the impacts on the area?

LA: It was devastation, total devastation, total devastation, especially south of me, like towards Homestead. The Homestead Air Force Base – we normally have the hurricane meeting every year there. But after that, we haven't had it anymore there; we had to do it somewhere else. It was really devastating.

MG: What, if anything, changed at the Hurricane Center after Andrew? Were there lessons learned, so to speak?

LA: Yes. We always learn a lot of things. It's hard for me to describe what happened, but one thing that came out of Andrew is that we got the new building. We got the new, fantastic, beautiful building in Miami here. There was a lot of trouble with the other building. It was on the sixth floor. It was in the city of Coral Gables. You could not put antennas because of the city codes. So now, this is a beautiful state-of-the-art building. I worked there for many years. I remember when I moved from there to there.

MG: And it is collocated with a university. Is that the University of Miami?

LA: The one now?

MG: Yes.

LA: No, it's Florida International University. It is the land of the Florida International University, but the building belongs to the federal government.

MG: Someone else I forgot to ask you about as you started your career, and I'm not sure I'm going to say his name right, but Vernon Dvorak was someone I've read a lot about.

LA: You said it perfectly. He is the most known person in tropical meteorology. I became an expert in his theory because of him. He was handicapped. When he was going to update his theory, his Dvorak technique, he needed to get some satellite pictures that were at the [inaudible] basement of the Hurricane Center – old, dusty. So he asked me, "Could you help me to get those pictures out?" He couldn't do it. So, of course, I went down there and was helping him for days. I don't remember exactly how long, but for many days, I'd get him the box, get the pictures he wanted, and he was looking at the features and telling me, "You see this? You see that? I'm going to include this in my book." The same thing that happened with the Russian lady happened to me with Dvorak again, and that was pure luck that I was there. It could have been another guy, another student, but that day, he asked me to help him.

MG: It sounds like you weren't just helping him retrieve these boxes. But you were really learning about what he was writing about.

LA: Of course. Because I helped him with the boxes, but when he pulled out, he was taking notes. We're not going to take all these boxes to the main floor. He wanted to do all the things in there because there were too many boxes. He took notes and showed me the pictures. He was brilliant. He was able to copy that, like a photographic memory, of the satellite picture translated into the other thing. Yes, he was amazing.

MG: When did you start making the advisories that you're so well known for?

LA: When I began writing advisories? '89.

MG: I want to ask you now about your advisory style and how it was developed. Did they change over time, or was this how they always were?

LA: I was always told by Max Mayfield, my best friend – he calls me the brother he never had – that when you write a discussion, my grandmother must understand what you wrote. I always try to be simple. Miles Lawrence, another forecaster, always told me (enough is said?) about brevity. That's how I developed my sneaky little way of doing advisories. I had a supervisor, James Franklin, who never liked my discussions because most of the web wrote about Avila: "I love Avila's discussion. I love Avila's discussion." He used to tell me, in a good way. That was nothing to do with evaluation or anything. It was just personal. He's a good friend of mine. He said, "Well, people like them because they're cute." He used to say that, like saying, "They're not scientific." But that is the most important job. That's where you put in writing how you forecast something. We all have different styles. But I'll tell you; these new kids are so good. The new generation is amazing. Now, they're stealing some of my sentences or my headlines. But it's fun. It's fun. I'm in contact with them all the time. They call me, not for advice, just because we're friends. We're like a big family. They are extremely good. This young generation, my goodness, they're better now than when I was at that age.

MG: That's good to know. That's promising. Weather is changing so rapidly, and it's important to have people who can communicate effectively about it.

LA: Well, back then, if I need to find something, I have to go to the library [inaudible]. They just go to Google now and find it. It's easier for them.

MG: You've worked during the Google age. How did that change your work?

LA: I had to adapt. I had to adapt to the new technology. I was able to do it. They used to call me the bug finder because every time they wanted to install something new, and they thought it worked, I found a bug. They said, "My goodness, how did you find it?" I did that. But you have to adapt, of course. Everything new is good eventually. It's not good the same day, but once you practice and you use it, it becomes better. But there's a point in your life that you have to say, "Enough. I can't adopt anymore. I'm an old man." It's not the reason I retired. There's a joke about a new thing that they do at the Hurricane Center – I don't even remember the name – that you have to put in with the AWIPS [Advanced Weather Interactive Processing System], all the points to have watches and warnings. And that is the most inefficient, horrendous way of doing that. That's one of the things [inaudible]. I can't do that. Of course, the new kids do it with one finger. But it's me. It's like when they substituted AFOS [Automation of Field Operations and Services], and they changed to another system. The old guys left. They said, "I can't move to the new system." But that's life.

MG: I meant to ask you about that when we were talking about the MAR. There seemed to really be a division in the National Weather Service between "old-timers" and "new-timers" in that generation.

LA: It's always going to be like that in every profession, I think – the old doctors, the new doctors. I always said if I go to the doctor, I prefer to have a new young doctor because they use

the latest technology, and the old surgeon is going to cut me all the way down. I'm not saying one is better than the other. I'm saying my preference. I can tell you that the generation of new hurricane forecasters at the Hurricane Center are extremely good. Of course, they become better and better and better all the time. Especially with all the experience this year, they've become much better. Of course, the discussions have changed. Remember, when I began, my forecast was only three days. Now, it's five days, and in-house, it's seven days. It's fascinating. You can write more or less, five days to three days.

MG: That means a big difference in terms of preparedness.

LA: Yes, everything.

MG: Forgive me for jumping around the timeline a little bit, but I wanted to ask you – I read somewhere that your first advisory was Hurricane Jerry in 1989.

LA: Correct.

MG: What can you tell me about that?

LA: That's the one I told you that they told me I could not issue watches and warnings. I was working that day, and I wrote that advisory in the Gulf of Mexico.

MG: Something else I read quite a bit about was your connection and relationship with forecasters in Cuba? I was curious about when that relationship started and how it manifested?

LA: Well, I knew many of them. But, of course, there are many now that – because the older ones either died or retired. But the new ones, sometimes I go – I have been to Cuba on my own, and I have met some of them in some of those hurricane meetings, and I've talked to them. But no, I do not have the connection that I had. Well, I had good communication with the new supervisor of the forecast department, but it's not directly – it is related. We coincide in meetings. She has a daughter, and she's a ballerina. So that gives me another point of contact.

MG: In coordinating your advisories, if there's a hurricane that's coming across Cuba, how does that work?

LA: It works like in any other country of the Caribbean. It's very well-established in the hurricane plan. People make the call or email, and the Hurricane Center gives them the forecast, the best option, and we recommend hurricane warnings from point A to point B, but it's your decision. It's your [inaudible]. I was always very good at that in communicating our position without imposing the position because it's their responsibility. They trust some of us there. It's good. Cuba, like any other country, it's very well established in the hurricane plan that you can find on the web. I mean, it's there. That hurricane plan that began with Neil Frank has developed and improved and improved, and it is a masterpiece today.

MG: So when you're charting a hurricane whose path is going over your hometown, do you call family and friends back home?

LA: I don't have anybody there. [laughter] I don't have any relatives in Cuba. But they know. I am too busy here. Now the relatives here, they drive me crazy calling me. I say, "Call the Hurricane Center. Don't call me. Call me if you're going to cook black beans on Saturday or something." Always, I give good advice to my friends, but most of the time, I'm very busy if there's a hurricane heading toward the US.

MG: Getting back to your advisories and their style, I read somewhere that you've written more advisories than anyone in the history of the Hurricane Center. Is that true?

LA: That's what they told me. The kids [inaudible] that because there have been people that perhaps before me work more years. But we didn't have the East Pacific. When we took over the East Pacific area of responsibility, then the amount of advisories doubled. But soon, that number will be – somebody else will be. Once, I was the youngest ever. That's no longer the case. So records just last for a day or two. [laughter]

MG: I also read that in '96, you took an accent reduction class. I was curious about what inspired you to do that? Did it have an impact on your advisories?

LA: I'm surprised. You must have spent hours reading about me because those are little details. Who's your spy? My enemy? This is a good spy. Yes. When we moved in '95 from the University of Miami to Florida State, to here, FSU, there was a guy who was the liaison between the university and the Hurricane Center. His name was James (Lewis?), a very good friend of mine from South Carolina. He was working in both places. So I said, "Is there any English there? I want to take that class." He had a very strong – you need to hear him – very strong Southern accent – lovely, beautiful. So we called the English department. He said, "I have here Dr. Avila." The director of the English Institute said, "Well, wait a minute, which one of you is going to take the class?" He got red. We laughed so much. He is a wonderful person. So I took that class, and I got an A-plus in the class. But I always tell the people that it wasn't fair because

I was living in the United States, I was working in the United States, and the rest of the students were from China, Indonesia, or Argentina. So they were not practicing English as much as I was practicing. In other words, I was the worst. But then, I really learned how to do that and tried to pronounce it a little better. But then the media began to interview me and said, "You lost all your charm because now you're thinking. Before, you talked to me without thinking about how to pronounce the word." That all began – there was a documentary done in the old building by the BBC [British Broadcasting Corporation]. They came to the Hurricane Center, and they decided to pick me for the documentary, in which I had to wear the same shirt two days in a row because they were filming. I said to the producer, "Why are you selecting me for this? You know, my English." The BBC guy told me, "Well, there are two reasons. If we play you on TV, and the American audience will not understand very well, they will stop and look, 'What is he saying?' So they look at the TV. The other one is: this guy is not here from America, but he has that important job. He must be good when he's there." It was the guy from the BBC that told me that. That was in the other building. But the accent reduction was a very – I still keep the books, and it was a very interesting class. The teacher was a lady from the Midwest, and she was perfect. She trained me a lot. I have a lot of things to say in English, tongue twisters and all that.

It was really fun. It was a really good class. It was right there. I didn't have to walk for an hour twice a week.

MG: It sounds like you lost your mojo a little bit when you lost your accent. The BBC documentary experience reminded you that your accent is important. It makes people listen closely.

LA: That was before the accent reduction class. That was way before the accent reduction class. I wanted to improve, but it didn't work. After you're old, there's no way you can change your accent. There's one funny story about all this. In the '90s, I used to go with Bob, the director, and we went all over the United States, and I accompanied him with the NOAA plane, giving lectures and things like that. I always have to introduce him. He always told me, "Do not say my last name. Just [say] 'the director of the Hurricane Center.'" There is no way a Latin person can pronounce S-H-E-E-T-S properly. So that's a fun story. [laughter]

MG: You're very quotable. You have many quotes online. You have your own Wikiquote page. I'm curious if you're surprised that your lines are so memorable in this way.

LA: I never knew about that until somebody told me about [Wikiquote]. Actually, who told me that was Jenni Evans. She was the president of the AMS, but we've been friends for many years. She told me, "Lixion, your quotes are so good. Even in Australia, people like the way you say things." I began to read that. I was surprised, but I'm not going to lie to you. I think I'm happy. Some of those things come out of my mind like crazy, not because I think about it.

MG: Has anyone ever tried to shape or change your messaging or your style?

LA: Oh, yes. The supervisor I have told you about, James Franklin. He didn't like it. He's the best writer. He's retired. He was the best writer. He got an award from AMS for the way he writes. But I keep telling him, "Yeah, but you're boring. I don't want to be boring, as long as my message is accurate." But it's me. But actually, no, nobody has. I mean, people correct my English. My English is not perfect. You notice. You know that. But it's the way it is. I can't do more. Now, at seventy, that's it.

MG: Can you walk me through a shift? I'm really curious about how you approached your job, just sort of practically. I read that you have a morning routine, and you don't peek at weather data before a shift.

LA: I'm surprised. I am surprised. But this is all true what you're saying. I am like a little machine, like a robot. I like to do the same things every day. If I had the day shift, I like to get there early. So I get there and load all the loops and all the models, and while they're loading, I go make my coffee. When I get back from my coffee – I like to get there early, so I will have knowledge of everything that is going on in there. Yes, I do that. That's what we normally all do, the same. We need to do that. But everybody does it differently. This is my routine. Then I slowly begin the day. Of course, I talk to everybody about the systems, the development, and look at this model, look at that. It is a routine that I have, including always trying to get my same parking space. I like that. Everybody has to do the same thing. You look at the models, and you

have a disturbance. Then, if we have a storm, we run the computer models, you start preparing the forecast, then you get ready for the conference call. Then you write the discussion, which I always tried to do it before, so I will have – once you write the discussion, you know what you're going to say at the conference call and if you need to talk to all the different countries, but everybody does the same thing.

MG: I want to ask you now about the 2005 hurricane season, but I'm wondering if you need a break. I just want to check in and see how you're doing for time.

LA: How much longer do you think this will be?

MG: I don't know. Maybe half an hour or an hour. It's up to you.

LA: I prefer maybe half an hour with you unless you need a break.

MG: I can keep going for another half an hour. That's fine.

LA: That will be good for me.

MG: Well, is there anything I'm missing up to this point?

LA: No, you have more things than I ever dream in my life. I wonder if you belong to the CIA [Central Intelligence Agency] or one of those agencies. No, you did your homework. That was good. That was good. Have you interviewed many people?

MG: Yes. At this point in my career, I've done hundreds of interviews. I've been doing this for a long time.

LA: Well, there's one important part that, for me, it's very, very interesting; it's my role as a hurricane forecaster at the AMS. I don't know if you're interested in that. I was the chair of the AMS Tropical – the AMS has different chapters, and there's Tropical Meteorology and Hurricanes, and it was a one of the – you begin by doing a local meeting, a local chapter, then you become the chairman of the meeting. Then you become the chair of the tropical committee. I was able to do that. That was a very good experience because I had to do a lot of work with the AMS, and I got to know most of the AMS people, and I participated in all the tropical meetings. That was very good for my career mine because I was able to – in the '90s still, there was a big bridge between the researchers and forecasters. So I was able to play the two [inaudible] because I had a PhD and I was a forecaster. I began to participate in the research groups in Australia. They started inviting me to go to Australia, to go to Fiji. That was a really, really good thing that I was able to accomplish. I became a fellow, and I got the [National Weather Service] Isaac M. Cline National Award [for Outreach] in 2005 – the National Award, the big one. I got that. Back then, [Conrad Charles] Lautenbacher was the head of NOAA, and he came down and gave me the big box with the plaque, which I still have. Sometimes, I say, "I'm going to remove that and put some ballerinas shoes in there," which I have from the famous American ballerinas. Do you like ballet?

MG: I haven't had the opportunity to be introduced to it in the proper way. But my three-year-old daughter is obsessed with ballerinas. So I have one of my own.

LA: Good. You keep me posted when she does the first show because I'm going to go. [laughter] I have shoes from Julie Kent. Julie Kent is the goddess of the American Ballet. She's retired. We're friends, and she gave me the shoes when she retired. I have those shoes saved.

MG: I wanted to ask about the 2005 Hurricane season and any events leading up to Katrina because I wanted to spend some time talking specifically about that storm.

LA: Well, Katrina was one of those interesting systems. It was like a little low pressure in the Bahamas. Back then, the models were not as good as they are today with Genesis [Forecasting] and all that, but it was a little disturbance. Of course, I smell it. I smelled the pressure change and all that. A depression formed. However, I was working that night with Max Mayfield when the eye came over Miami, and that was the headline of my advisory: "Eye of Katrina Over the National Hurricane Center." That was a very interesting storm because it moved West, Southwest. It went from all of North Miami, South Miami, the Everglades. It was a very, very interesting day. The wind was blowing very hard. We had to work very hard. Then, of course, New Orleans and all that. But it was a very interesting system. To be honest, after it developed and became a hurricane over Florida, I knew it was going to intensify, but I never thought it was going to be that intense. Don't let people fool you [and] tell you that they knew. We still have a lot of troubles in forecasting rapid intensification. Even this year, they had a lot of trouble with all the rapid intensification. It's very complex, but they were better. The kids were good. At least, they have an index that says there is a chance that that exists. I didn't have those things back then.

MG: Well, tell me what those couple of days were like as the storm hit and the devastation occurred.

LA: There was devastation in Miami but nothing compared to New Orleans. In Miami, remember, it moved in as a minimal hurricane and intensified. There was a power failure [inaudible] in some of the gas stations. But in Miami, it wasn't that bad. But when you're working, you're thinking about the forecast. It's like during Andrew when Andrew was hitting Miami; I was not talking about Miami. We were talking about New Orleans because it was going that way. We need to make the forecast. Already the preparation has to be made for Miami. I don't think that we ever thought that Katrina was going to be that strong even in Miami. We thought it was going to be a tropical storm going by and, yes, windy, watches and warnings. But no. It was just a regular – there had been so many.

MG: That was the year where you said, "I'm running out of things to say," because you were getting into Greek letters to name the hurricanes.

LA: Yes, that was at the end. Because if you have a storm that is being stationary in the middle of the land, that was not Katrina; that was something else. Then people said, "It's going to intensify," or "It's going to die." They're trying to find excuses, repeating in the previous – I said, "I have run out of things to say. Just read the previous one because there's nothing new to

say." It is true. I didn't know. The system never changed. The system never changed [inaudible], never intensified, never moved. So what else are you going to say? Don't waste people's time. That was my thought.

MG: Did the Hurricane Center predict that it was going to be such an active year that year?

LA: To be honest with you, I don't remember the seasonal forecast. I don't keep track of the seasonal forecast. I mean, I do, but I don't. I don't remember. I used to belong to that group when it began, but I was no longer in that group. I got an award for that for the first year, and then, after that, they kicked me out. They didn't kick me out. But Max told me – Max was the director, and he said, "Why don't we give that opportunity to another forecaster" because I had too many things. I'm the WMO liaison, and I was doing all kinds of work for the hurricane committee, the hurricane awareness tour. It's a lot of work.

MG: You said earlier that you could smell the pressure change? What did you mean?

LA: Maybe it's because I translated from Spanish to English. It's an expression. Did you ever know an old dog [inaudible]? You knew that there was something funny going on in there because the pressure was changing, the clouds were doing a certain way, and the wind pattern. Remember, I had to have a lot of tools before the model, before the numerical weather prediction. Remember that a hundred years ago, people had to look at the cirrus clouds and look from those cirrus [clouds], and think, "Well, there's something in there." So you develop certain skills.

MG: In 1998, the WMO's Caribbean hurricane committee met in Havana. Can you talk about that trip home and combining work with your home and heritage?

LA: Fascinating. That's a fascinating story. I think that was the first time I went to Cuba representing the United States. Of course, CNN had an office where the hurricane committee was. John Zarrella was the person down there. Do you know John Zarella from CNN? John Zarrella was one of the first big CNN news guys, like Anderson Cooper today. Well, back then, it was John Zarrella. Now he retired. He has a restaurant near Cape Canaveral, an Italian restaurant. He used to come with us on a plane when the media was allowed to come. So, of course, when I got there – the Sun-Sentinel was there, and a lot of newspapers and they all interviewed me. There are pictures of me in Cuba. They asked me, "What do you miss the most about Cuba?" I didn't want to get into politics. No. I said, "Oh, what I missed the most is my mother's black beans." My mother didn't know how to make black beans, but it was a good way of [inaudible]. It was a very interesting meeting, high-quality. The hurricane committees, they're all good. I will say well to reconnect with some of the meteorologists, and that was very good. Jerry Jarrell was the director. It was really, really a good meeting. We discussed there the same thing we discuss every year. We have that meeting in a different –it used to be one year in the United States and one year in a Caribbean country. This year, we couldn't do it because of COVID. We had to do some Zoom meeting.

MG: What other hurricanes stand out to you? I was wondering about Irene or Lee in 2011.

LA: I have a special preference for hurricanes that my coworkers make fun of me. They say, "For Lixion, hurricanes, the only ones to form south of Cuba come to Florida or the Gulf of Mexico." Well, I would say – "like." I was very interested in 2008 because we have all those hurricanes that went through the Caribbean and moved near the south coast of Cuba to the Gulf of Mexico. The Caribbean, it's a very fascinating region. The reason hurricanes get strong there is because if you have a hurricane in the Atlantic, the water gets cold, and they don't intensify. But in the Caribbean, south of Cuba, no matter how much the hurricane [inaudible] the water, the water is always warm. So the cold water doesn't kill the hurricane. So yes, all those hurricanes – Gustav, I was working, and it became a cat [category] four. And Wilma. Oh, Wilma. I was working the midnight shift when the lowest pressure was recorded. The Air Force guy came in and said, "[inaudible] pressure," and I want to report it, but I put in the note, saying, "This is the pressure reported, but it has to be calibrated." Because then the media and everybody started writing things, and then, "Oh, it was not that." I always said, "This is what was measured, but this has to be calibrated."

MG: What about Hurricane Matthew? There was a lot of destruction in Cuba with that storm.

LA: Matthew?

MG: In 2016.

LA: Oh, yes, Matthew. I don't see any particular incident with Matthew, just a regular [inaudible] Eastern Cuba? I don't recall any significant [inaudible] that I'm aware of. I don't know if you can tell me or something.

MG: No, I have a note that it impacted Cuba.

LA: Eastern Cuba, yes. It was coming and became a category five. I was working the evening, and it went north over Cuba. But that was a regular hurricane, like all of them. I mean, not a regular hurricane, but nothing significant.

MG: Somewhere, you talk about a guy from Cuba who lectures on the history of the Weather Bureau in Cuba. I was curious about who you were talking about.

LA: Since you're a historian, I'm going to promise to give you his email. I always think that if I ever want somebody to write a history of me, which I don't think I will, he will be the guy. But now, I have you. [laughter] He's not a meteorologist. He's a historian. But the way he talks – and I have like three or four of his books – fascinating. He goes to all the libraries. He gets all the old newspapers. He has written about meteorology in Cuba in the last century. There's one book that he wrote that, for me, the title is – [inaudible]. It's called (*Trapped Between the Cross and the Hurricane*?) because most of the meteorologists in the 1800s and early 1900s belonged to the Catholic Church. They were [inaudible], and there were just whispers, and they had to argue between the science and the church. So they were trapped in between, and how they were able to make it that the science prevailed. He is fascinating the way he writes. When he gives a talk, I just listen. I want to give you his email, and you can write to him, and I will tell him. He's a wonderful friend.

MG: What's his name?

LA: Luis Enrique Ramos Guadalupe. He has written so many books about directors of hurricane centers, [inaudible] and a lot of interesting – but I will send you his email. He's wonderful.

MG: How did you get introduced to this work?

LA: Actually, I didn't know him. One day, somebody came to a class at the Hurricane Center, and he sent me one of his first books, and I read it. Then, when I went to Cuba, he came, and we talked. After that, every time he gave a talk – the history he tells you, it's not about equations; it's not about science. It's about the real struggle and life of the meteorologist and history, how things happen, and anecdotes like the Hurricane of 1948 that I always heard in the story, the communication part. Like, the hurricane is going to pass thirty miles east of the city. But thirty miles east of this city is twenty miles east of the other city. So people never pay attention. [inaudible] strongest part. It's not only the way he writes. The way he expresses, the way he describes the history, you never get bored.

MG: I want to ask you now about the end of your career. Is there anything I'm missing up to this point?

LA: No, nothing. Nothing at all.

MG: In that same interview where you were talking about this historian, Luis Enrique Ramos Guadalupe, you also talked about how when you retired, you didn't want to have a goodbye party. When you retired this year, you couldn't have a goodbye party due to the coronavirus pandemic.

LA: I couldn't have a goodbye party. But I was very lucky that I have a wonderful – the last director of the Hurricane Center might be your relative. Do you know his name? Ken Graham.

MG: That's right. No relation.

LA: No relation. Well, he's a wonderful man. He managed to do a little Zoom, but nothing formal like they do at the Hurricane Center. I did not want to have – why do I have to put up –? I mean, why do people have to suffer and go and collect money for a present? I don't want any of that. If it wasn't for COVID, all I was going to do is – let's all go to a bar and have some wine or a beer, or have some dinner or coffee, [inaudible] but I didn't want to have a party. I don't know if you have seen – Louis Uccellini sent me a beautiful video of him saying goodbye to me. Do you know Louis Uccellini?

MG: Yes, but I haven't seen the video.

LA: I can forward it to you if you want to. It's wonderful because Louis – I always had the best relationship with him, but at work. It's a beautiful, beautiful video. In the end, there is a little bit of a joke in there, which is true. I don't want to publish this part.

MG: Let me turn off the recording then.

[Tape paused.]

MG: Throughout your career, you've really become a household name in your area, one that the public likes and trusts. I feel like the public has developed a relationship with you that they don't develop with other meteorologists. I'm curious if you can reflect on that.

LA: Well, first of all, in Miami, a lot of people speak Spanish. I was, for many, many years, the voice in Spanish. There were two TVs, one in English and one in Spanish. I was jumping from one TV to another. Those things have changed when the new kids came in, and the internet came, but I was always on TV. I think you probably referred to one of the famous episodes that I went to – there was a hurricane that was not coming here, and I went to Home Depot to get something that I needed. The Home Depot people say, "Oh, the hurricane guy is here buying supplies. He might know something that they haven't told us yet." Of course, there was nothing. But people, yes, they recognize me, especially in the '80s, the '90s, and the 2000s. But after the internet, there is no more – I mean, the director is the one who does most of the talking.

MG: What went into your decision to retire? It was just this past April 2020.

LA: Well, midnight shifts. I don't think I can take midnight shifts anymore. I became just seventy last week, and I wanted to travel, and I wanted just to be – I began to work when I was seventeen, and I haven't stopped. I wanted to. It was not a money problem. It was just that I needed to retire. Things were getting – look when I left – the systems, the record, the complicated season, and people are working so hard to be able to do all the things. I think it was a good decision for me to retire. I thought I was going to miss more. But this year, for example, when we had all those hurricanes hitting Mexico and Central America, I helped them with the coordination because those directors called me. They know that I'm retired, but I was able to communicate with the Hurricane Center. The Hurricane Center knows quite well that I will never deviate from the same thing I did for years. So I just get the word from them and to them. I'm happy that I'm retired.

MG: I'm not sure if you want to talk about your life outside of NOAA.

LA: No, there's no reason, nothing relevant. I'd rather just not.

MG: I understand. That's fine. What has COVID been like for you?

LA: Well, I try to always think positive. Basically, I don't go anywhere. I just go to the supermarket once in a while and with a mask and a shield. Sometimes I'll say, "Think about the poor people of the Second World War. There was bombing, and they couldn't get out of the house for months, and all that." So I'm just trying to find excuses to relieve my sorrow and my

pain. Yes, it's very difficult. I cannot see my relatives. It's hard. It's very hard. I hope now with the vaccine that things will get better. I'm an optimistic person. I hope so.

MG: My final questions are about NOAA as an agency. How have you seen the agency change?

LA: Well, NOAA has been my life in the United States. I became a scientist with NOAA. I became, I would say, a person in NOAA. I suffered too much in Cuba where I was discriminated against by being Cuban, by being not involved in the government. At NOAA, I have always had the most, I would say, professional life, and I got every award that they can give you. They respected me as a scientist. I have never had any trouble with NOAA. In fact, look at my NOAA shirt. I put it [on] for you. It's with Christmas colors. [laughter] NOAA has been my life. I appreciate it. I worked for many, many NOAA directors. I'm talking about since 1980 because even when I wasn't a federal employee, I was still involved in all the meetings.

MG: You must have seen the agency change quite a bit.

LA: Yes, especially what I know is the technology. Technology is what I know. I do not know about management, payments, and money. I never worry about it because that's why I never applied for any management position. No way. Because I'm not good at that. But I have seen how technology and science – as I mentioned, originally from one five-hundred millibar map a day to now, ten models. Every half hour, you get another frame, and satellites, my goodness – from one satellite picture and a fax paper to a looper that has all these pictures every fifteen seconds, every one minute, and the models. Numerical weather prediction is amazing. There's one thing that I want to mention that you might find interesting, which is part of the problems that happen, and there's nothing we can do about it. When I came from Cuba, one of the most surprising things was that I could go to a NOAA office, and I can visit in and out of a NOAA office. In Cuba, people cannot go to the weather [office]. Nowadays, this has become like Cuba. In order to enter a NOAA office – not me; I mean, people – you have to send a passport, you have to send this, you have to make a clearance. I say, "I'm so proud of that before." But I understand that security risks are high, and we need to protect NOAA. But that was kind of interesting how the world changes.

MG: When did you see that change take place?

LA: This had begun like, ten years ago. I think a lot of the change gradually began after September 11th. It has to be, yes. But I'm not saying it's a bad thing. I'm saying that it's a change. I was so proud of telling all this – when I saw a Cuban, "You see, in America, I can go to any hurricane center. I can go to the Hurricane Center office." I was proud of it. Now, I have to keep my mouth shut, at least. [laughter]

MG: What have ballerinas been doing this year, during COVID?

LA: They have been struggling a lot for many reasons. First, they cannot dance. If they don't dance and practice every day, the worst thing happens to them; they get fat. [laughter] I have been in contact with many of them. They've been doing a lot of videos and classes online, but

it's not the same. It's not the same. I hope this finishes, and we can go back to regular life. I know many of them. I have so many friends in the ballet world, all the way from the Paris Opera? to the Royal [Ballet] in England. There's a reason for that. There's always a Cuban dancer in one of those companies. They are all over the world – in the Paris Opera, in Spain, in England, in Japan – everywhere, just like a baseball player (inaudible) spread out.

MG: Is there anything I have forgotten to ask you about in terms of your career or thoughts on NOAA as an agency?

LA: No, I think you've done more than I ever dreamed that you were going to ask. Really, since you're a historian, I want you to meet Luis Enrique.

MG: That would be great.

LA: You don't mind if I give him your email?

MG: Not at all. That would be great.

LA: He is wonderful. I can share with you. If you have any questions, you write to me. I'm so happy that you did this. Good luck with your project.

MG: Well, thank you so much for taking the time. Thank you for your service with NOAA and for keeping us safe and entertained.

LA: Well, I hope I didn't bore you to death in these two hours. I know I talk too much, but you know what? You're used to that, I guess. [laughter]

MG: There's no such thing as talking too much in my world. This has really been such a treat. I'm so glad we got to meet this way.

LA: Okay. Well, thank you so much. Have a good day. Now I'm going to have lunch.

MG: Good. Me too. Please stay in touch.

LA: Okay. Bye-bye. Write to me anytime you want to.

MG: I sure will. I'll send you a picture of my ballerina.

LA: Great. Save me a ticket when she becomes a prima ballerina.

MG: Okay, you can get backstage.

LA: Yes, bye-bye.

MG: Bye-bye. -----END OF INTERVIEW------

Reviewed by Molly Graham 2/19/2021 Reviewed by Lixion Avila 3/1/2021 Reviewed by Molly Graham 4/3/2021