Clear Skies Ahead: Conversations About Careers in Meteorology and Beyond

December 12, 2023

Kelly Savoie:
Hello, Clear Skies Ahead listeners. This is Kelly Savoie and I'm hoping you can take a moment of your time to rate and review our show wherever you listen to podcasts. We have produced over 60 episodes and you can help us reach even more individuals that will benefit from the diverse experiences shared by our guests. Thanks so much for listening, and I hope you enjoy this new episode.

Welcome to the American Meteorological Society's podcast series, Clear Skies Ahead, conversations about careers in meteorology and beyond. I'm Kelly Savoie and I'm here with Emma Collins and we'll be your hosts. We're excited to give you the opportunity to step into the shoes of an expert working in weather, water, and climate sciences.

Emma Collins:
We're happy to introduce today's guest, DaNa Carlis, Director of NOAA's National Severe Storms Laboratory, NSSL in Norman, Oklahoma. Welcome, DaNa, thanks so much for joining us today.

DaNa Carlis:
Thank you, Emma. Thank you, Kelly. I'm really excited to be here finally, after a couple of months of trying to get me on, right?

Kelly Savoie:
Well, we're very happy to have you DaNa. Could you tell us a little bit about what sparked your interest in science and how it influenced your educational path?

DaNa Carlis:
Sure. My scientific interest really kind of started pretty early in my life. I got an opportunity to be friends with one of the few African-American medical doctors, his son, when I was in middle school and high school. And he used to tell me all these scientific stories about him doing chemistry experiments and just really made science fun. Once I got to high school, I was really good at science and math, and so I decided that that would be my career path. I thought I was going to be a medical doctor at first, but then I took Biology 101. And Biology 101 said, "DaNa, this is not for you." And so I decided to transition over into chemistry and I focused on chemistry at Howard University and graduated with my Bachelor of Science degree in chemistry in 1999.

Kelly Savoie:
Oh, wow. And so how did you get more interested in meteorology and atmospheric science?

DaNa Carlis:
Well, meteorology came in really late for me, and I think it was mostly because someone asked me, "did I want to get a free degree?" That particular individual was Dr. Vernon Morris, who was one of the professors at Howard University, and they had just started up this Howard University program in
atmospheric science. And so they were looking for students from Howard. I knew that I wanted to get a master's degree. I knew that I did not want to continue down the chemistry path, and so it was just the grace of Dr. Vernon Morris providing that opportunity to me and offering up that opportunity to me because to be honest, I was one of those kids that really didn't think about going to college. Because I knew it was expensive, and so I didn't think I could afford to go to college growing up, but it really wasn't until my mother asked me a pretty simple question, what do I plan on doing after college...I mean, after high school? And that particular question basically changed my life. And once she told me...I told her the wrong answer and she told me that I'm an idiot for thinking that way, that I wasn't going to go to college. She kind of let me loose and let me fly basically. And three degrees later, I have my bachelor's, master's, PhD in Chemistry/Atmospheric Science and Meteorology, and here I am today.

Kelly Savoie:
Well, that's awesome. And so when you switched from chemistry to getting the degree in meteorology, were you pleasantly surprised? Were you like, "Oh, I really like this. I'm glad I did this?"

DaNa Carlis:
Yeah, absolutely. I took my first intro to Atmospheric Science course in the master's program at Howard, and I just fell in love with it. It spoke to who I am as a person because who I am is really about service. Service is really important to me. And the fact that meteorology touches everybody's daily lives just made a lot of sense. It was practical for me. I just didn't know it was a career growing up. All I knew was that, oh, meteorologists are on television and I'm too ugly to be on television. So I was like, I need to do something a little bit different. So I got to be in the background, behind the scenes and just doing the research. So that's really what I love. And the fact that I had the opportunity to meet a lot of people from NOAA by joining that program, that master's program at Howard, that's what really introduced me to NOAA because I didn't know what NOAA was before I started that master's degree, to be honest.

Emma Collins:
So what opportunities did you pursue inside or outside of school that you knew would be beneficial to securing a job in your profession?

DaNa Carlis:
Well, I'll say I did do an internship. I was part of the REU program back in 1998. I don't mind saying how old I am either. So this was way...a long time ago, right? I tried that particular program. I did an internship in Chemistry and Analytical Chemistry up at the City University of New York. And it was really that opportunity that made me decide, "Hey DaNa, I think you want to do something different, not be in a lab with a lab coat on each and every day. What can you do to help to impact people's everyday lives?" And so getting into that atmospheric science program, I did my master's research out at Goddard Space Flight Center in Greenbelt, Maryland. So I was able to work for the most part almost every day out at NASA for almost two years. And that was just overall kind of life-changing, getting out there to the laboratory, doing research.

It was mostly atmospheric chemistry research using the total ozone mapping spectrometer, Tom satellite. And then there were a couple of guys out there that really encouraged me and told me, "DaNa, you have what it takes to continue your education and get that PhD." And the fact that Howard University, it was absolutely incredible to me, amazing to me, allowed me that opportunity. They supported me throughout my master's and my PhD and just gave me some amazing opportunities to really pursue my
passion of people and science. And so meteorology is just that perfect intersection for me because it really does touch everyone's everyday life.

Kelly Savoie:
What was your first job in the field and how did you end up where you are today?

DaNa Carlis:
Well, back in 2002, I was approached by NOAA, the Office of Education at NOAA. They said that they had a program that was looking to bring in more minorities into the atmospheric sciences, into NOAA as an agency. It had been a priority for the agency. NOAA had actually supported the Howard University program in helping to get that particular program spun up with the Atmospheric science program and a degree, NOAA had played a really major role early in my career. And then some of the scientists coming over from NOAA and giving talks and those kinds of things just made a really, really important...Helped me to understand that this is the path that I really wanted to follow. And so when you think about getting into the field, right? And getting that first job opportunity within NOAA, which was a research position out in Hawaii, in Honolulu. So I was still a student, but at the same time-

Kelly Savoie:
Lucky.

DaNa Carlis:
Yeah, NOAA recruited me to join the agency. And I remember going home and telling my wife, I said, "Hey, I got a job offer, but it's in Hawaii. What do you think about moving to Hawaii?" She said, "Let's pack our bags. We out of here."

Kelly Savoie:
The right response.

DaNa Carlis:
Exactly. That was not a hard conversation to have with my wife. But we moved to Hawaii in 2004 after I finished up some of my coursework at Howard. Finished up two years of additional coursework for the PhD, and basically NOAA moved us to Hawaii in 2004 to 2007, and I finished my degree in 2007, my PhD in 2007. So I had the opportunity to work at the Honolulu Forecast Office, and I also worked at the Pacific Region Headquarters, and I had some amazing mentors out in Hawaii. Ken Waters, Dave Chen at the University of Hawaii, one of the professors out there. They were absolutely incredible and amazing. Just helped me to grow because I did numerical weather prediction for my PhD and asked me did I even know how to code when I first started that particular career path. And I'll tell you, no, not at all. And so I really had—

Emma Collins:
I'm sure you do now.

DaNa Carlis:
Yes. I had to teach myself a lot of things and they had to be patient with me, with my overall development. And so they were amazing people, amazing mentors to me that really helped spark and
support my professional growth really early in my career. And I'll tell you, mentors really do play a huge role, especially early on in folks in one's career. So they did me amazing. They did an excellent job of helping me to grow.

**Emma Collins:**
You've spoken a lot about the impact that these mentors had on you, but how might a young student come into finding a mentor? I mean, is it something that happens organically or did they actually have a program set up for you that would partner you with other professors?

**DaNa Carlis:**
Yeah, I think when you go into grad school, you automatically get some type of advisor, right? When you're going to get your master's or your PhD, you got to go through the process of selecting an advisor or a research mentor that'll guide you through that particular process. But I just encourage students to talk to as many folks as possible. Start to develop your network early on where you can have some informal conversations, informal mentoring opportunities with folks that are within the university that you're sitting in. But then also there are people outside of the organization that you can talk to, people at NOAA, people at other universities that can give you some amazing advice and just some examples of what life can look like throughout your career. And for me, being first generation student, college student, but also in some sense, first generation professional, right? Where I grew up working in a restaurant, my first job was as a janitor, and so I didn't really know what it meant to work in an office setting, so I had to learn that from others and get the lay of the land and from other folks.

And so I was able to...I just try to talk to folks about different aspects of what it means to be a scientific researcher, to be a scientist in the National Weather Service or in NOAA research. And so I just encourage the young folks to start to develop that network early, but at the same time try to keep in contact with that network as well. Once a year email or something like that, letting them know what you're up to.

**Kelly Savoie:**
Yeah. And I find that when you ask people about their positions or what their job is like, they're very, very eager to tell you about it.

**DaNa Carlis:**
Exactly.

**Kelly Savoie:**
So it's like, don't be afraid to just start up a conversation with someone and ask them what they do. Because it certainly helps you decide whether it's something you want to pursue or not. And I wanted to ask you, and I'm sure some of our listeners would like to know this too, once you have a position in NOAA, is it easy to move around once you're in? Do they have lots of internal positions where employees can apply for other positions elsewhere?

**DaNa Carlis:**
Oh, my goodness, yes. It's so easy to move around when you get into a federal agency because of number one, retirements. People are retiring all the time. Number two, people have gaps, organizations have gaps. So like me, I went on detail, which basically meant I went on an assignment. I was still working
for the Environmental Modeling Center and the National Weather Service, but they allowed me to go on a rotational assignment where I could learn some new skills and test my knowledge in different spaces across the agency. And I got an opportunity to go work for the Homeland Security Program office. Didn't know anything about what Homeland Security and NOAA had to do together. I was mostly a research meteorologist. So I went from coding and analyzing weather data and all of those kind of things to sitting in the Homeland Security Program office.

But then after that, went to work for NOAA headquarters, working in policy. I got an opportunity to be the policy advisor for Dr. Rick Spinrad, who at that particular moment in time was the NOAA chief scientist. Got an opportunity to work for Vice Admiral Manson Brown, one of the first African-American three star Coast Guard Admiral ever in our country. I had that opportunity. I worked with him for a year. And so for young people, being flexible, having being agile in terms of your overall skill set and where you feel you can make an impact, I think the number one thing that I want to mention though is being scientists, we're very analytical thinkers, very process oriented people. We have the ability to focus in on particular tasks and subjects for long periods of time. And I found that particular skill transferable to many different places, whether I was at the Homeland Security Program office or whether I was working for Dr. Spinrad or Vice Admiral Manson Brown on their policy teams. I found the scientific skills that I developed pretty useful. Very useful to be honest. And having that ability to be an analytical thinker, a critical thinker, is really, really important to being successful in life in general.

**Emma Collins:**
Could you walk us through a typical day on the job as the director of NOAA's National Severe Storms Laboratory?

**DaNa Carlis:**
Are you sure you really want to hear that? That is not the most fun thing.

**Kelly Savoie:**
We do. We want to know.

**DaNa Carlis:**
Okay, how about I make up what I wish it was like?

**Kelly Savoie:**
What you don't think is interesting, we will find interesting.

**DaNa Carlis:**
All right, well, here it goes. So I really do kind of start my mornings starting to take a look at any emails, looking to see if there's any taskers coming from NOAA headquarters or OAR headquarters. Trying to just get a feel for what the day is going to be like, because every day it's pretty different to be honest. And then I go into probably a series of meetings. I'll have a staff meeting with my senior leadership team. I'll have a manager's meeting once a week and throughout the rest of the week is meetings with different people across the agency or inter-agency meetings. So I spend probably on average maybe four hours, probably on video calls like this per day. But it kind of depends on what's happening. But I'd say somewhere around the three to four hour range. Sometimes it can be worse, sometimes it can be better, where I only have maybe one meeting a day, but on average is somewhere around three to four.
And then I'll take a walk around the laboratory and just try to meet people and see what's going on, talk to them about their research. I have to set aside time to do that though, because for the most part, a lot of people are kind of demanding of your time and wanting my time to do certain things or to talk about certain things. But I also, again, try to make time for one-on-one meetings with my deputy director as well as my science level division chiefs. Then after that, it's time for lunch, then time to go home. And so it's really a lot of fun in a sense that I get an opportunity to, of course, set the direction for an organization like the National Severe Storms Laboratory, where we are the premier organization in the country and the world really for understanding severe weather, whether that be lightning, tornadoes, flash floods, all of the above.

We do a lot of amazing work, and that includes both field research and research that just happens sitting here at your computer, logging into a supercomputer and developing numerical weather prediction models like the Warn-on-Forecast system. It really is a lot of fun and it's a diversity of skills and talents that we have in this particular laboratory that makes it a really attractive place to work and a really fun place to work. And so my biggest issue is that I work with a bunch of scientists that are introverted. I'm an extrovert as you can see. So sometimes they want me to get up out of their office so they can get their work done.

**Kelly Savoie:**

So what about the work hours or the workday? Is it a typical 9 to 5 job? Does that change depending on severe weather or what's going on? Is it different depending on the week or even the day?

**DaNa Carlis:**

Yeah, we're a research organization. So for the most part, we are very much so 9 to 5. If there's severe weather close by, then yes, we will approve some of our staff to operate one of our radars called the Advanced Technology Demonstrator, which is a phased array radar where we want to collect data, we're a research organization, so we want to study the atmosphere. We want to study severe convection, so we'll turn that particular system on. And some of our radar engineers as well as our radar meteorologists scientists, they'll work pretty much through the event. Since we're research, we're a lot different than operations, although operations, the National Weather Service Forecast Office is right behind me over my right shoulder. And also the Storm Prediction Center is right in here in this particular facility over my left shoulder. So we get an opportunity to engage a lot with our operational partners within the National Weather Service.

They're mostly working the shift work and those kinds of things. And so we are mostly, again, 9 to 5, but if there's some weather happening close by, we will definitely work a little bit harder. But then again, we do go out in the field. We have mobile radars. We have a mobile mesonet truck downstairs. So we do field research and conduct field campaigns as well, working with NSF and other partners. So when our folks go out there in the field, that's when they probably work 12, 14 hour days. Because actually, they may be in Mississippi or Alabama studying tornadoes or QLCS events basically. So those folks, when they go out there, it's a long day basically.

**Kelly Savoie:**

So it sounds like you really enjoy working with the people that you work with and there's opportunities to interact with other departments and organizations. Is there anything else you like most about the job?

**DaNa Carlis:**
Anything else I like most? That's a hard question because I got into leadership and management thinking that I really want to be able to support science and move science forward and set the strategy and direction for science within an organization, right? And the fact that I'm living that out at the director level, which is very different than being the actual scientist. My background is in science, but I'm not the one actually doing the science. I'm more so helping to support and direct the science, right? Which is very different. And so there's certain times in one's career where you're going to... Sometimes I miss being the one to do the coding and running the model or going out and doing the field research, but at the same time, I signed up to be the leader. And leadership is really about people and people development. And that's the part that I really, really enjoy the most is getting a chance to see people grow and develop professionally throughout their careers.

Because I honestly firmly believe that it's really important for people to challenge themselves, to make themselves uncomfortable. And part of my job and what I tell my staff is part of my job is to make you a little uncomfortable in this particular space because that's really where I believe people grow. I think if you have a little bit of discomfort... Vice Admiral Brown used to call it being comfortably uncomfortable. If you have a little bit of discomfort, it actually does help you, pushes you, it motivates you, it helps you to move forward with life and try to overcome that challenge. And for folks that work with me or for me, I really do try to challenge them and help them to be a better scientist or engineer.

**Emma Collins:**
So speaking of challenges, what are some of the biggest challenges you face while working in the field?

**DaNa Carlis:**
In the field of meteorology?

**Emma Collins:**
Sure. Or as a director. On the director level.

**DaNa Carlis:**
Okay. I would probably say just time. Time is of the essence. It is so important. I don't have enough time to do everything that I really want to do. And so trying to find work-life balance, you mentioned 9 to 5. My job probably isn't 9 to 5, I probably put in a couple extra hours every day because of the demand. I may get an email from headquarters, I may get an email from NOAA. I may get an email from some other institution asking for some information about Severe Storms. You never know. I told you every day is different. And so that really is the challenge, is trying to find enough time to get the things done in a timely fashion, in an effective way. The other challenge I would say from a diversity, equity inclusion perspective is I really do want to see our field of meteorology advance as it pertains to DEI. I want to see people that look like me come into this organization and make an impact and do amazing science. So I'm always looking for that, and I'm trying to promote it and making sure that folks that come from black and brown communities see themselves in our field is really important to me.

**Kelly Savoie:**
Can you expand a little bit on how you feel that the integration of social science and physical sciences is going to help NSSL to engage and serve people that are from underserved communities?

**DaNa Carlis:**
Yeah, I think the social science piece is extremely important. And I'm not a social scientist. I'm again, a meteorologist. So the physical science, it can be very done in an isolated kind of manner rather than a collaborative manner sometimes. And so if you don't integrate the physical with the social, then how do you really truly know what people need, right? As a scientist, I can have a great idea, right? And develop the concept, conduct the research, but if I never test out my research or communicate with folks from or with the public about the work or the stakeholder that's going to be using my tool or technology or my science, then how do I know it's actually useful? And so social science to me really just allows that ability and that focus on developing tools, technologies, systems that are actually useful to the public and to the stakeholder. And so it really does provide that opportunity for you as the researcher to test out your theories in a public manner. And we do that every single day here at the National Severe Storms Laboratory in our hazardous weather testbed, which again is right over my left shoulder if you wanted to really know that.

So we bring in researchers, forecasters from academia, from the National Weather Service, from private sector companies, broadcast meteorologists. They come into our testbed area and they test out the latest innovations, things that aren't actually available in our field. It's research based work tools, technology systems that we've developed. And they come in and they take a look at them. Projects like Threats-In-Motion, right? Where we're trying to change the paradigm for warnings for our country to be more equitable. And so basically, what that includes right now is our warnings are mostly these static boxes that we put out there, and the forecaster has to update them every 30, 45 minutes. But what if with Threats-In-Motion, we could have a box or some type of plume that basically follows the storm and the forecaster is part of that particular process every minute or every time the radar updates the warning updates, right?

So a ton of information is a different way of doing warnings, but it actually makes it more equitable because depending on if you're in the box or outside of the box, you may not even get that warning, right? From the current warning paradigm. If you're in the polygon, you may just be east of that polygon and you won't get that warning for another 30 minutes until they reissue the warning. You compare that to what we're trying to do with Threats-In-Motion as that storm moves, if that plume gets right over you, you'll get a warning. So you'll get that 30, 45 minute time frame in order to get yourself prepared for the severe weather that is impending. So that's how I see the integration of the physical and the social sciences. I think it's a really important aspect in a way to do science that is used inspired that actually matters to people. When you integrate the people aspect into the R&D that we do, then you have better products that come out of that. People are served better and especially underserved communities.

Kelly Savoie:

Yeah. Because without that, there's a gap. There's a missing piece. You need that in order to know that you're doing the right things and helping the right people. So I think that's excellent that the organization has that opportunity to test out things.

DaNa Carlis:

Yeah. And it's very unique too. It's a very unique way of doing research. And the one thing about it is that you get pretty much consistent feedback every year about what's great about your system and what's wrong with your system, right? And then you get to go back to the drawing board and fix the things that are wrong. You get another opportunity at it. And so within the HWT, we complete and conduct all of those surveys and all of that information goes back to the scientists that put their new technology or their innovation into the hazardous weather test bed for feedback, and you get to go back and you start back over and try to make it better and just keep incrementally improving it each and every year. And
that to me, makes the most sense in terms of effective research and development because then it actually is well tested, well vetted, especially really use inspired work that is actually going to make an impact in folks' everyday life.

Emma Collins:
So could you talk a little bit about your plans to inspire more Black Indigenous People of Color in meteorology and what some goals are that NSSL has for this important area of focus?

DaNa Carlis:
Yeah. So from just me personally, I'm actually the first African-American director of a NOAA research laboratory. That means something to me, but it also means something to other people that look like me as well.

Emma Collins:
Of course.

DaNa Carlis:
And I feel like I need to make sure that I am available to have those types of conversations and not shy away from those conversations. I don't know. I guess, I feel like I need to be the type of leader in this particular space that is able to have those really difficult conversations with people. There are challenges working within this particular space, such as being the only one, right? I remember going to the Environmental Modeling Center, and I was one of the few African-American PhD scientists working there. And being young, that can be a little bit intimidating. It really was the other folks around me that helped me to be comfortable being in that particular space, feeling like I could contribute, knowing what it is that was really expected of me in that particular role.

And so for me, it’s really important that I serve as one of those people that can be available for those conversations when folks want to have them. And it doesn't just include African-American or Hispanic folks. It includes the entirety of our field because I really believe that if we have these kind of conversations, that it'll actually help to grow and create a more inclusive space because people will know. A lot of things with regards to [inaudible 00:32:31] is because of ignorance, and I really want to make sure people are well-informed and that they understand these different perspectives because we do have a different perspective for sure. So I take it pretty personal that I have this particular opportunity, and I want to use it to hopefully inspire that next generation of scientists because that's how I got into the field. Because I had the first African-American doctor, one of the few African-American doctors in Tulsa.

I just happened to be friends with his son, and he would actually sit us down before we go out and do something stupid on a Friday night, and he would tell us all of these stories about what it meant to be a scientist and what it meant to be a medical doctor. And so I feel like I'm following in the footsteps of some giants, and I need to make sure that I put myself out there and make sure that I'm available. So from an NSSL perspective, we do have our NSSL Diversity and Inclusion and Sustainability team that we have here with a major focus on creating an inclusive culture. Sustaining inclusive culture within the organization, ensuring that we have some of those opportunities to bring in young people, whether it be on internships through the RU program or some of the other NOAA education programs.

We want to make sure that the space is welcoming. So that's really about the culture of the organization. But then, also we want to make sure we’re recruiting and retaining talent. Being in a federal facility... Or not necessarily facility, but being in a federal workplace, there's certain limits to the science that we can
do and the amount of money that we can pay people. We're not the private sector. And so people have
to really want to be part of a federal organization, whether that be you're working for the Cooperative
Institute as an academic employee, or you're actually a federal employee, you got to really want to do
this mission. And if you want to do this mission, we're going to accept you. We're going to love on you.
We're going to help you develop as a leader, as a scientist. And then again, my thing is I want to
challenge you. I really do feel like if I can challenge you, find ways to challenge you, that you'll grow
beyond measure. And that's how I see, really, NSSL from a diversity, equity inclusion perspective, really
helping to lead the way in this particular space.

Kelly Savoie:
Do you feel like things are actually improving and things are headed in the right direction and you see
some positive change?

DaNa Carlis:
Yeah, I think again, with diversity, equity, and inclusion, you just got to know it is a marathon, not a
sprint. It is something that you have to build over time. I just got in this job, maybe, what? January the
30th? I feel like we have the right pieces in place to sustain and create the type of culture that I want to
see. Am I happy with where we are? No, I'm not going to lie to you. I'm not happy with where we are.
We have a lot to do in terms of our growth. But at the same time, do I feel like we have the structures in
place to be successful in this particular area? Yes, I do. It all depends on the buy-in from the staff here
within the organization. But then it also depends on young people wanting to come to Norman,
Oklahoma.

And I'll tell you what, Norman is a fantastic place to work. You won't find a facility like this anywhere in
the country where you have the National Weather Service right behind me. You got the scientists in here,
you got social scientists in here, you got engineers in here. You got the School of Meteorology right
upstairs with the faculty as well as the students taking classes in the same facility. This is a very, very
unique place. It's a great place to grow as a meteorologist, and I really do want to ensure that I help
people get into this particular space, whether that be coming to the University of Oklahoma, taking
classes here, getting a bachelor's, master's, or PhD, and working with NSSL scientists to do amazing
research while at the same time, can interact with the National Weather Service, your operational
partners for that research.

Kelly Savoie:
Yeah, it sounds like an amazing place. I just picture a college campus or something.

DaNa Carlis:
It is on the college campus, but it's on the outskirts, a little bit of the college. So I could walk to the
basketball facility, I could walk to the stadium. It's about a mile away, for football games and those kinds
of things. To me, it's a space where you don't have to feel like you're the only... It's not like you're on a
college campus where you're at a university and you have 30 meteorology students or 10 meteorology
students. We have hundreds of meteorologists around here for you to engage with, right? Whether
they're professional or students or professors or whatever. You can do it all here, I think.

Emma Collins:
Well, DaNa, we are so grateful for everything you've told us about your career. However, before you go, we always ask our guests one last fun question at the end of the show. So what is your all time favorite movie?

**DaNa Carlis:**
That's another hard question. You guys are not easy question askers. No, you guys are amazing hosts. I'm just kidding.

**Kelly Savoie:**
There’s got to be one though that you're just like, I love this movie.

**Emma Collins:**
I've seen it a million times and I'll see it a million more.

**DaNa Carlis:**
I'd probably say Black Panther, the first one I remember... And the reason why I say that, because it's the only movie where I actually dressed up in African gear, in African clothing to actually go to the movies. And I saw that movie in the theater probably five or six times. I was so amazed by that film in the fact that I actually went to the same university as Chadwick Boseman. He was there when I was there.

Emma Collins:
Oh, wow.

**DaNa Carlis:** I don't think I actually knew who...He wasn't anybody back then. He was just a college student like me. So I didn't know he was going to grow up to be this amazing actor and all of those kind of things. But the fact that I was at the school with him and some of my friends that were in fine arts actually knew him and they studied with him and all of those kind of things made it really, really cool. So Black Panther, the first one is just an amazing film and a really inspiring film.

**Kelly Savoie:**
Absolutely. And you have to see those on the big screen because it had just so much going on, and I agree with you. I love that one too. I love almost all those-

**DaNa Carlis:**
All those, like the Marvel comics?

**Kelly Savoie:**
Yeah, all the Marvel movies are just so well done these days, but you have to see them in the theater.

**DaNa Carlis:**
You do. I a hundred percent agree. So this was fun.

**Kelly Savoie:**
Yeah. Thanks so much for joining us today and sharing your work experiences with us.

**DaNa Carlis:**
Yeah, no problem. I really appreciate the opportunity to share my story and my background, how I got here. We didn't even talk about my role on the AMS Council, so that's a good thing because I'm new.

**Kelly Savoie:**
I know. I thought about bringing it up, but we are running out of time, so.

**DaNa Carlis:**
Well, thank you again.

**Emma Collins:**
Well, that's our show for today. Please join us next time. Rain or shine.

**Kelly Savoie:**
Clear Skies Ahead, conversations about careers in meteorology and beyond is a podcast by the American Meteorological Society. Our show is edited by Johnny Ley. Technical direction is provided by Peter Killelea. Our theme music is composed and performed by Steve Savoie, and the show is hosted by Emma Collins and Kelly Savoie. You can learn more about the show online at www.ametsoc.org/clearskies. And you can contact us at skypodcast@ametsoc.org. If you have any feedback or would like to become a future guest.