

**Howard University**

**CapComm Lab**

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**Podcast 4 Transcript - DaNa Carlis**

**Dr. Tyree:** [00:00:06] Welcome to the third installment of Students, Scientists, and Stakeholders. The NCAS-M podcast gives listeners the opportunity to learn more about the NOAA Center for Atmospheric Sciences and Meteorology and hear from the most important people who make the center work—our students, our scientists, and our stakeholders. Our first series focused on students, the second on faculty, and this series will spotlight our alum. We will hear from some of our alum about how the NCAS-M grant or NCAS grant impacted them and where they are now. I'm your host, Dr. Tia C. M. Tyree, a professor in the Cathy Hughes School of Communications at Howard University, and I'm a longtime member of the NCAS NCAS-M grant. My role within the grant is to communicate the various activities in the center, showcase what we do, how we do it, and share our success stories. Today, we're excited to sit down with an alum of the center and hear his story. Since 2000, we have changed the scientific landscape by fostering a culture of fellowship, collaboration, and interdisciplinary studies, through our multiple partnerships with Minority Serving Institutions (MSI) and Historically Black Colleges and Universities (HBCUs) across the country and beyond, all because of the support of NOAA. In fact, our center has supported our diverse alum of more than 150 individuals, preparing them for careers in STEM, natural resource management, and policy fields. I am very pleased to introduce you to DaNa Carlis. He's with me today; he is the director of NOAA's National Severe Storms Laboratory, also known as NSSL. He is a triple alum of the Howard University with a BS in Chemistry, an MS in Atmospheric Sciences, and a PhD in Atmospheric Sciences where he was connected to the grant from 2002 to 2007. How are you today, DaNa?

**DaNa:** [00:02:05] I'm doing fantastic. Thank you for having me.

**Dr. Tyree:** [00:02:08] Oh, it's a pleasure. We have some very interesting conversations with individuals connected to the grant from their PhD studies and even some who were connected at the undergraduate level. Tell me first, a little bit about how you found your love for the STEM field in chemistry or atmospheric sciences.

**DaNa:** [00:02:32] Yeah, well I think that started pretty early, you know, I was grew grew up in Tulsa, Oklahoma, I had the opportunity to be friends with a young man whose father was a medical doctor. And he would tell us all the stories about doing chemistry experiments in high school and in college, and I just kind of fell in love with the sciences at that particular moment in time. And then I then I thought about what I was good at. And I was really good at science, I was really good at math. And I felt that that was the path that I was going to follow when I went on to Howard University back in 1995, as a kid as a biology major at first. And then I transitioned over to chemistry because I liked chemistry a little bit more.

**Dr. Tyree:** [00:03:24] So when you were an undergrad and studying chemistry, what was your ultimate goal when you graduated? I know you continued your educational pursuits. But when you have a degree in chemistry, what did you do right when you finished?

**DaNa:** [00:03:39] Right when I finished I went right back into school!

**Dr. Tyree:** [00:03:43] I know that! Yeah that happens to a lot of us!

**DaNa:** [00:03:47] Right, and so I while I was doing chemistry, I was a research assistant for one of the Howard University professors in the in the department of chemistry and I had an opportunity to go to City College of New York for a summer internship. And it was at that particular moment, having those two experiences where I decided that I wanted to do something that was more impactful to people and you know, chemistry can be that but chemistry is also working in the lab a lot and I wanted to be more engaged with with people. And so I decided to stay in school, get go into that atmospheric science degree. And I tried that out and I fell in love with the field of atmospheric science, atmospheric chemistry, in meteorology, and so I decided that that was going to be my career path because, you know, meteorology atmospheric science is very practical. You know, people are impacted by the weather each and every day everyone has looked at their weather app or whatever it is on their phone to figure or look at the news, to figure out what the weather is going to be for the next seven days. And so I found that to be more practical, impactful on people's everyday life. And that's why that's why I decided to continue to follow that particular path.

**Dr. Tyree:** [00:05:17] So, clearly you fell in love with atmospheric science so much so that you continue to get an additional degree, a doctoral degree in atmospheric sciences. Is that the moment you were officially connected to our grant? And if so how did that happen?

**DaNa:** [00:05:36] Well, I actually was connected to the grant as a master's degree student. And so that was around the 2000 timeframe. And I think it was around 2002, that I actually transitioned over into being more supported by NOAA. But I was still a student at Howard and part of the NCAS-M program, but my funding actually came from NOAA. And so I've no longer accepted any, any of the, the NOAA funds from Howard University through NCAS-M because I was a federal employee, starting in 2002. And so I was paid by, by NOAA in their educational partnership program, which actually sponsors the grants that go to Howard and goes to the other institutions to create the cooperative Science Center Network.

**Dr. Tyree:** [00:06:41] Wow, so So walk me through that. Was that before after you graduated, that was during your time at Howard University?

**DaNa:** [00:06:50] Yeah. That was during my time at Howard. So I, you know, started in the master's degree program in 2000, supported by NCAS-M at that particular moment in time, and once I finished with the master's degree, I think it was that summer, I was approached by NOAA in their educational partnership program, where they were looking for students from minority serving institutions, to be a part of their graduate Sciences Program, or the GSP program is what we used to call it. And so I applied for the GSP program while still a student at Howard, and got accepted into the GSP program accepted a federal position within the National Oceanic and Atmospheric Administration and NOAA, and I was still a student at the exact same time finishing up courses. So I finished up my courses 2002 to 2004, my PhD level courses. And then in 2004, Noah moved me to Hawaii and I worked in Hawaii at the National Weather Service, the forecast office out there as well as the Pacific Region headquarters, conducting my PhD research. And so my PhD research was focused on Hawaiian weather in the Maui vortex that forms over the island of Maui.

**Dr. Tyree:** [00:08:17] Well, DaNa, that's not a bad that's not a bad way to spend your studies, if I must say so myself. Not not a bad gig you got there. I was actually…

**DaNa:** [00:08:27] It was awesome.

**Dr. Tyree:** [00:08:28] Yeah, I was actually looking at the time you've spent at NOAA, and you're approaching seventeen years? That's correct?

**DaNa:** [00:08:39] No, it's since I started in 2002. All of those years as a student actually accrue.

**Dr. Tyree:** [00:08:46] Wow.

**DaNa:** [00:08:48] So this is actually in in August, it'll be 22 years for me.

**Dr. Tyree:** [00:08:54] That is an amazing amount of time. And what I'm noticing in a lot of the conversations that I'm having, is that no one does allow a lot of employees to grow within and you've had new positions there, can you I know, you can't tell us everything, we'd have to have a whole podcast an hour or so dedicated to all the things you've done. But what are some of the highlights within your career at NOAA?

**DaNa:** [00:09:25] Yeah, I would definitely say the highlights would be the fact that I was able to work at organizations that I identified back in 2007. I identified a few organizations where I really wanted to work because I wanted to continue conducting research. And so when you work for the National Weather Service, you know, you that most of the jobs are being a forecaster, you know, working shift work, those kinds of things, but getting that PhD, you know, I wanted to continue down the path of of being a meteorologists or a research scientist as an employee of NOAA. And so I put together a list of places where I wanted to work. And on that list was the top at the top of the list was the Environmental Modeling Center. In at that particular time, it was in camp Springs, Maryland, it now sits in College Park, Maryland. And the other place where that I wanted to work was the forecast Systems Laboratory, which was a place that was in that is in Colorado, in Boulder, Colorado, it's now called the Global Systems Laboratory. And the funny thing is, is that I've worked at at two of the three places that I identified in 2007, that I wanted to work at, and I am so I've done those two places work that though, both of those places, and those were kind of, you know, really part of my dream in terms of working for NOAA. So I went to EMC, the Environmental Modeling Center, I worked there for a little bit under 10 years as a research meteorologist, developing the the global forecast system model and transitioning that particular model into operations. And that was like my dream. And you know, that was working at EMC was really an amazing opportunity. You know, and I just don't take that for granted. And then the fact that I was able to in 2020, you know, during the height of COVID, I got an opportunity to get accepted as the Deputy Director of the Global Systems Laboratory. And that was my first opportunity to be a supervisor. And so I served as their Deputy Director for three years. And just last year, I moved back to my home state of Oklahoma. And I accepted the position of Director of the National Severe Storms Laboratory and who wouldn't want to work for an organization that that does amazing work. We're the inventors of weather radar for our country, we go out and we, we study, tornadoes and severe weather. And so you know, we have a bunch of guys here that do tornado chases, but we, as scientists, we call it storm intercept instead of tornado chasing, and…

**Dr. Tyree:** [00:12:25] Much safer way of putting it for regular folks. So so we can put that into perspective.

**DaNa:** [00:12:31] Yes.

**Dr. Tyree:** [00:12:32] So actually, I was going to ask, either, I'll give you an opportunity to pick which one you want an answer, because I, all of that was so exciting. And I'm not sure what might be the best question at this point. But on a daily basis, what are the individuals in your office doing and how are they impacting just everyday people?

**DaNa:** [00:12:59] Yeah, so the researchers here at the National Severe Storms Laboratory, they are mostly writing code, they are analyzing data that they've gone out into the field to collect they are developing communications materials so that we can communicate some of our science to the public, they are serving on different committees as subject matter experts in the field of meteorology, especially with respect to severe weather, which continues to negatively impact the United States each and every day been a very busy and active, severe weather season here in 2024. So they really focus on trying to make the best products and develop the best services, through our research and development kind of framework. So that our our operational partners at the National Weather Service can be able to communicate the forecast to the public and to their core partners, all of those organizations that need to make, you know, life saving decisions. And so we stay on the research side and we work with our partners on at the National Weather Service and other organizations so that their their products and services have the best science backing their their work with the with the public.

**Dr. Tyree:** [00:14:32] And would you say that Oklahoma is a unique place for the laboratory?

**DaNa:** [00:14:39] Oh, absolutely. We are in traditionally what's called the tornado alley. And you know, we are right in the center of the United States of America. And we are able to get out there and see some of the severe weather this impacting the United States. It’s a lot easier to get there from Oklahoma than being on the East Coast. And so we were able to, you know, go right outside of our, our building and see lightning, hail, severe winds, tornadoes, damaging thunderstorms, all of those things, those severe weather characteristics that happened here in the central plains of the United States. And so right outside of our offices, our is our laboratories, our research laboratory, and the fact that we're able to quickly get there and experience it and study it makes our jobs easier.

**Dr. Tyree:** [00:15:40] Well, speaking of doing your job, well, which I know you do, there's one thing to come to work every day, and hit the goals hit the objectives. But there's another thing to be a change maker, someone who's looking to do things differently and changing or organization. And I understand you co-founded NOAA’s diversity professional advancement Working Group. Can you tell us a little bit about that experience? And what exactly that working group does?

**DaNa:** [00:16:10] Yeah, so we, I was I am the co founder of the diversity and professional advancement working group, we found that another Howard University alum and NCAS-M alum, Dr. Michelle Hawkins, was my co conspirator in founding that particular organization. And it's one of the first NOAA Employee Resource Groups ever in the history of our organization. And so we found that group really to connect folks that are of like mind that are interested in diversity, equity, inclusion, but also advancement, people that are looking to hopefully be leaders within the federal workspace. And for many of us, you know, we have become leaders, we have advised presidential transition teams, we have had conversations with upper levels of NOAA leadership about diversity, equity and inclusion and how to improve the EIA within our organization, what we've had, we have advised leadership development programs where they've made changes based on things that we've recommended as it pertains to increasing the diversity of our leadership development programs. So we've done a lot in our main pillars really have been focused on recruitment and retention and advancement. And so we go out into communities because we want to grow more black and brown people that are interested in the NOAA mission interested in you know, being the next meteorologists being the next oceanographer, or being the next great fishery scientists. So we, you know, we really have done a lot, that particular organization has been extremely helpful to my overall professional development is well, given me opportunities to lead people that I don't have authority over, but they do they have followed my lead, and to have that type of influence means a lot to me, and to see so many of those people that we've been working with for the last 10 years achieve, you know, their dreams in terms of getting amazing jobs, increasing levels of responsibility, all of those things is why we started the diversity and professional advancement working group and we're seeing the fruits of our labor each and every day.

**Dr. Tyree:** [00:18:38] Well, I'm just going to go ahead and say that that must be something you you learned in, or was placed in you at Howard University, because a big part I think, of what we learned at Howard University is, is each one reach one teach one that, you know, we're better as a village that we want to not just succeed, but we want to see others succeed. We don't see that as something that's a threat to us. We see others succeeding as a bonus for us as as a collaborative. So it's wonderful to hear not only of the creation of the working group, but its success, because that's what's most important. And you know, what else DaNa? That fits directly into the purpose of this grant, which is to make sure that we diversify NOAA’s workforce. But on the other side of that coin, I would have to say is not only diversifying, but make sure that individuals can make it there, succeed there, and then find advancement there. So what a wonderful opportunity to hear about your work in that aspect. Which leads me to my last question, a question that I'm asking everyone who's a part of this series, which is if there was a student and undergraduate or graduate student, you know, looking for a career and the STEM field thinking of you know how to fund their education or thinking of really being successful in the field, maybe even being a part of our grant, what are some practical advice you'd give?

**DaNa:** [00:20:14] Number one, I would say, Go and talk to the students that are currently part of the grant. But also talk to the faculty, talk to some of the alum and listen, and you know, I would, I would definitely say, go in with your ears wide open, right? Because being able to understand and hear people's stories, hear how they got to where they are, what challenges have they faced, and we all are going to face challenges. Part of being a grad student, at any university is managing the ups and downs of being a graduate student, in the fact that you're able to get through it, and that you have the support system behind you to help you move through that particular organization and get that degree and gain that higher level of education is going to be just critical is it is absolutely it's the foundation of, to me of my success of anyone's success is being able to navigate grad school at the Masters and PhD level because it gives you so much more confidence in the fact that you are an expert at a particular area and field that is absolutely needed. And the fact that we get to work in STEM fields is just that extra bonus because of the respect that we get, you know, STEM professionals really are kind of the leading experts in a lot of different advancements that our world continues to make, whether that be AI, whether that be new technologies to monitor and track the weather. All of those things are extremely important. And we need the best and the brightest and some of the best and the brightest look just like you and me, and I want people to fully understand that and to to embrace the challenge. That's what we need is for our young people to embrace the challenge and come and make a difference with right alongside us.

**Dr. Tyree:** [00:22:23] Well, DaNa, I am inspired in so many ways. And I am proud of you're more than two decades at NOAA, it doesn't sound like you're slowing down and you shouldn't. I'm sure there's so much more ahead of you in your career. And I'm so proud that you not only represent the Howard University, but that you also are a shining example of the success of the grant. So thank you for joining me today.

**DaNa:** [00:22:50] Thank you so much for having me. I really appreciate the opportunity to share a little bit of my story.

**Dr. Tyree:** [00:22:57] And thank you for joining us on another episode of students, scientists and stakeholders. To learn more about NCAS-M and the grant, visit our website at [www.ncas-m.org](http://www.ncas-m.org). Also, if you are a student and you want to be a part of the grant, be sure to check out the Apply page. You can also stay connected and keep up with our latest updates by following us on our socials – on Twitter and Instagram @NCASnews. Until next time, thank you for joining us.