



The AMS Board for Early Career Professionals wants to highlight members in various sectors of the weather, water and climate enterprise who exemplify the AMS Mission early in their career with a series titled "Perspectives from Early Career Professionals."

This spotlight features Manda Chasteen, Ph.D candidate at the School of Meteorology, University of Oklahoma, but that's only one of many aspects of what she does and is involved in. Read the full interview below to learn about Manda's path through undergrad, graduate school, and onto being a Ph.D. candidate!

**BECP:** Current title, place of employment, and any other leadership or volunteer roles

**MC:** I am a Ph.D. Candidate at the School of Meteorology, University of Oklahoma (OU) and work as a Graduate Research Assistant through the Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) and National Severe Storms Laboratory (NSSL). I am currently working toward finishing my degree as a visitor at the National Center for Atmospheric Research's Mesoscale and Microscale Meteorology Laboratory (NCAR/MMM) in Boulder, Colorado.

**BECP:** Describe the path that got you to where you are today in your career

**MC:** I grew up in southern Illinois and have been fascinated by thunderstorms and tornadoes for as long as I can remember. I ultimately decided to pursue meteorology in college and

received my B.S. in Atmospheric Sciences from the University of Illinois at Urbana-Champaign in 2014. During my time at UIUC, I was able to participate in the the Ontario Winter Lake-effect Systems (OWLeS) field campaign and spent two months in Upstate New York collecting radar data (and playing) in lake-effect snow bands, which helped to solidify my love for research, fieldwork, and mesoscale meteorology. After graduation, I began my Master's at OU studying the dynamics and evolution of nocturnal thunderstorms and participated in the Plains Elevated Convection at Night (PECAN) field campaign. I decided to stay at OU for my Ph.D. and am working through the Verification of the Origins of Rotation in Tornadoes Experiment Southeast (VORTEX-SE) program to understand the multiscale dynamics of tornado outbreaks in the Southeastern U.S. I received the opportunity to visit NCAR in 2019 through the Advanced Study Program (ASP) Graduate Visitor Fellowship Program and have since been trapped in Colorado by the mountains and beautiful views!

**BECP:** How important were internships early on to get to where you are today?

**MC:** I had two summer internships while I was an undergraduate student. After my sophomore year, I spent a summer working for the Naval Oceanographic Office at Stennis Space Center in Mississippi, where I met several meteorologists and oceanographers and first became acquainted with data analysis and GIS. The following summer, I had the opportunity to intern at the National Weather Service in Gray, Maine, through the NOAA Hollings Scholarship program and completed a research project comparing tornadic and nontornadic thunderstorm environments in New England. In particular, I think my Hollings internship was an invaluable experience for me in terms of both personal and professional growth and helped to refine my research interests and career goals.

**BECP:** What is something unique you've been able to accomplish/experience so far in your career?

**MC:** I have been incredibly fortunate to participate in multiple field campaigns, especially considering that my research primarily involves numerical models! During PECAN, I spent most of my nights operating a Doppler lidar to sample the pre-storm environment, but I was also granted the opportunity to fly around and even into the thunderstorms on the NASA DC-8 and NOAA P-3 aircraft, respectively. Unfortunately, the NOAA P-3 flight was also the infamous "PECAN spiral mission" (even some of the crew members had motion sickness...), but I cannot imagine a more remarkable lightning show! Beyond this experience, I have released soundings during several NOAA/NSSL field projects and the Targeted Observation by Radars and UAS of Supercells (TORUS) field campaign in 2019.

**BECP:** Is there anything you would have done differently in college knowing what you know now about your job?

**MC:** Many people who attend graduate school often wish that they had developed stronger programming skills while they were in college. To take this a step further, I wish I had been formally exposed to numerical modeling and high-performance computing while I was in

college. The learning curve in graduate school is incredibly steep, and this includes a lot more than just learning about meteorological processes. In addition to writing scripts to plot and analyze data, graduate students are often expected to compile and run models, and fighting with Fortran libraries, supercomputers queues, and memory allocation errors is really no fun when you have no idea what you're doing!

**BECF:** To reach this point in your career, what role have mentors and advisors played?

**MC:** My perspective comes from someone who is still a student, but I think that dedicated mentors and advisors play an indispensable (and, sadly, often underappreciated) role in the growth of young scientists. I am a first-generation college student, and were it not for the mentors and professors who saw potential in me early on while I was an undergrad, I certainly would not be where I am today. However, once I started graduate school, I began to really appreciate the value of mentorship and how the quality of advising affects student outcomes and overall mental health.

**BECF:** What advice would you give to an early career professional starting in this field?

**MC:** Networking is invaluable, even if it means just having a casual conversation with someone during a conference, workshop, etc.! These interactions have the potential to open doors for you as you begin your career and may set the stage for some really great opportunities down the road. And although it can be challenging at times, try your best not to be intimidated by prominent and/or late-career scientists. Many of them are incredibly nice and helpful, and they are ultimately just an older, more experienced version of you!