



Q & A with NWS Raleigh SOO Dan Leins



Dan Leins

Position: Science Operations Officer (SOO)

Education: Penn State University

Hometown: Forest City, PA

Where did you go to school and what was your NWS Career Path to get to NWS Raleigh?

I was born and raised in Pennsylvania, so I didn't have to travel far to find a great school for meteorology. I graduated from Penn State and within a few weeks, I made the trip half way across the country to Pleasant Hill (Kansas City), MO where I began my NWS career as a Meteorologist Intern. After just about 2 years in Kansas City, I moved to Cleveland Ohio as a General Forecaster and quickly learned just how challenging Lake Effect Snow forecasting can be! Four years later, I moved to Phoenix AZ as a Lead Forecaster which was like being transported to a different planet compared to where I grew up and had worked in the past. Phoenix is also the place that gave me a whole new appreciation for the phrase "It's a dry heat!" After 6 years as a Lead Forecaster, I made the short drive down Interstate 10 to the Tucson, AZ forecast office where I served as the Science and Operations Officer for just under 4 years. Working closely with the staff, external partners in southern Arizona, and the University of Arizona on a number of collaborative projects is what ultimately drew me to the Raleigh office in November of 2019 given the extensive relationship with NC State and other local partners. I hope to continue the great work and relationships that have been built up over the past several decades.

What got you into weather?

That's easy - Hurricane Hugo in 1989. As a small child in Pennsylvania at the time, we didn't bear the brunt of that storm in particular but I recall being outside and noticing the clouds were a) moving quite fast and b) coming from what I perceived to be the wrong direction (most storms came from the west vs. the east) and the outer bands of Hugo were coming from the east that day. I remember being incredibly curious about what was going on and being glued to The Weather Channel to learn as much as I could



about the storm and from there, I was hooked.

What is your current role here at NWS Raleigh and what do you do in that position?

I serve as the Science and Operations Officer. My role is to oversee the science program of the office including research to operations initiatives, training, university interactions, seasonal readiness, and other operational duties. More than anything, I see myself as a resource for the staff to help them do their jobs more easily and effectively while leveraging the latest science and technology.

What is your favorite type of weather?

Tropical weather is what got me hooked on weather in the first place, so it's naturally at the top of the list. The size of tropical storms and hurricanes, along with all the mesoscale features associated with the storms as they move onshore fascinates me more than anything else.

What is your favorite type of weather to forecast?

Any weather that allows me to try out the latest tools that are under development. Maybe that's summer convection where I can try out ensembles of convective allowing models. Maybe it's winter where I'm looking at probability exceedance thresholds for snow across the area. I'm always looking for opportunities to try out new "stuff" and integrate it into the forecast process.

What is the most challenging part of your job?

There's so much new "stuff" out there in the field of meteorology and so many opportunities to try things out (testbeds, proving grounds, conferences), and I need to budget my time appropriately and prioritize what's most important. As someone who is always trying to learn new things as quickly as possible, prioritizing these types of opportunities can be a challenge at times.

What is the best part of your job?

The teaching component is my favorite. Whether it's sitting down with someone one on one to go over a new tool or method, or in a larger group setting reviewing a past weather event, I love sharing knowledge (and gaining knowledge in return). I also love working with students and sharing some of the knowledge I've gained through my career to help them become more successful/marketable individuals.

What is the most memorable weather event you have covered in your career?

Probably one of the first lake effect snow events I experienced in northeast Ohio as a forecaster at the Cleveland office. I remember leaving the office at 8 AM after a mid shift squarely in the middle of an intense snow band. After 10 minutes digging out of my parking spot, I got on the road and traffic was terrible, visibility was atrocious and it took twice as long to get home as it should have. By the time I got home I was out of the band, it hadn't snowed at all, and the sun was out. That was really eye-opening to me, to see that kind of gradient over such a short distance and just how fickle the atmosphere can be when it comes to winter forecasting.

What do you like to do in your spare time?

I am a huge fan of college football, racing, photography, and spending time outdoors with my wife and my dog (a corgi named Jac). Exploring the area greenways on my bike is also climbing the list of must-do activities outside of work, that is until the pollen arrives.