Transcript of "Alice DuVivier, Project Scientist at the National Center for Atmospheric Research in Boulder, Colorado"

Clear Skies Ahead: Conversations about Careers in Meteorology and Beyond

1 March 2022

Kelly Savoie:

Welcome to the American Meteorological Society's podcast series **Clear skies Ahead: Conversations About Careers and Meteorology and Beyond**. I'm Kelly Savoie, and I'm here with Rex Horner, 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.

Rex Horner:

We're happy to introduce today's guest, **Alice DuVivier**, a Project Scientist at the National Center for Atmospheric Research (known as NCAR), and located in Boulder, Colorado. Welcome, Alice. Thanks very much for joining us today.

Alice DuVivier:

Thanks for having me.

Kelly:

Alice, could you tell us a little bit about what sparked your interest in atmospheric science and how it influenced your educational path?

Alice:

Sure. I grew up in Colorado, and I spent a lot of time outside biking and hiking in the mountains, which are activities I still do a lot. I've always enjoyed snow and cold weather, and there was also lots of interesting weather in the winter months. There were windstorms, sometimes lenticular clouds. There was actually a really big windstorm this week in Boulder, reminiscent of things that I experienced growing up, and so I think that made me interested in what was going on in the world around me. I didn't decide I wanted to pursue earth sciences until near the end of college. I was a physics major. I found, throughout those studies, that while I love physics, I was more interested in the application of physics to earth sciences than pure theory or theoretical physics. And so I took a couple earth science classes in my senior year of college, and I really enjoyed those. Earth science is at the union of physics and chemistry and biology, so it's super complex and also really interesting. And I think it's really relevant for anyone living on the planet because you can experience and observe pieces of that that are going on. And I think being in able to do that, from being outside since I was a little kid, is really what sparked my interest in that particular path.

Kelly:

So did you decide to go on and get higher degrees in atmospheric science once you found that you had an interest in that?

Alice:

Yeah. So, at the end of college... it was in 2008 and there was this big recession, so there were limited jobs in science, anyway, right out of college. And I'd been thinking I wanted to go to grad school anyway, so I applied to graduate programs, both in geophysics and in atmospheric science to courses I'd taken, and I'd also done some field projects or a summer research project in each of those. And basically, depending on what the programs were and how interested I was in working with particular advisors, that's how I ended up following the path I did in pursuing atmospheric sciences. I was just more excited about those projects that were going on in the program that I ended up studying at CU Boulder.

Rex:

You told us how you experienced the weather firsthand and how that influenced you. Where you were raised, were there other opportunities besides advancing to the next higher degree in atmospheric science that you pursued inside or outside of school that you thought would be beneficial on your way to securing a job in atmospheric science once you finished your degrees?

Alice:

Yes, I did a number of summer internships in college. I think it's really important to learn what you don't like, in addition to what you do like, so I tried a bunch of new things and experiences. In college, I realized that I did really like the academic path. I enjoy research, I enjoy writing, those sorts of things. I wouldn't say that I necessarily ruled out industry immediately, but since I really like those things, I just stayed in that lane and wanted to keep pursuing that as long as possible. I also did a lot in terms of trying to develop my communication skills. These are really important, I think, in atmospheric sciences, but probably any job you go down, because if you can't effectively communicate your work to other scientists or the public, in general, then I guess I feel like what's the point in doing it if you're the only one who knows?

Alice:

So I worked as a writing tutor in college. As I said, I really enjoy writing. I think being a strong writer and enjoying that has been important for being able to have a successful career in atmospheric sciences, but it likely would've been important in other paths as well. And I've also attended a number of workshops to learn to be a better speaker and oral presenter, in general. So I think those sorts of skills are really important, in addition to the internships, I guess I also feel this is something I wish I'd done more of, to be honest, but proficiency in coding and data analysis is pretty essential for a career in sciences, no matter what you do, but especially for atmospheric sciences. A lot of scientists, I'd say, including me, learned coding as part of what you do in graduate school. So I think some more formal training in this maybe would've been useful for the career path that I've chosen because those skills are pretty crucial for success.

Rex:

Would you say that you picked up your coding knowledge while working on projects, or did you have a specific opportunity in graduate school to learn the fundamentals of coding?

Alice:

I would say I picked it up working on projects and having mentors both within my research group, but outside of my research group as well, who had had a more formal background. And by doing that and thinking of a specific project... "Okay, I want to make a line plot. I want to make a map plot." Those sorts

of things I could build by knowledge and skills there. I did take a numerical weather prediction class, but it didn't really talk about coding and data analysis. It was more about how to run weather and climate models, which I do a lot as well. So that's also a key skill, but I think this is something that maybe has changed since I was in graduate school. But I do think that there weren't really that many specific data analysis or coding classes that they recommended that we take. It was kind of a "You'll learn the skills you need while you are in graduate school for whatever your project is."

Kelly:

So, Alice, getting back to what you're talking about, taking some workshops to help your communication skills. I was just wondering how you found out about workshops and what they were all about.

Alice:

Yeah, so I took some workshops. The most memorable one was one that the Association for Early Career Polar Scientists, APECS, put on, and it was with the Alan Alda Center, where we actually practiced doing some improv work. That's the whole thing that Alan Alda did. But, in that workshop, we had a chance to practice being on camera or being asked questions in these sorts of TV or other interview settings. And it was really eye-opening to be able to see yourself on camera and hear yourself and think about what you might change. I had a little bit of experience with that as a writing tutor as well. We did some video workshops of watching ourselves tutor and learn things like, do we do things while we're talking like flick around a pen or something that is distracting to people and how to try to minimize those sorts of things?

Alice:

But I think the key for any of these skills, writing, coding, whatever is just to practice a lot. So I have volunteered for opportunities to talk to K-12 kids or sometimes within the community, activities like that that help me build those skills and learn how to hone my message for different audiences. And especially, when you're working with kids, the stakes are really low. They're not sitting there analyzing every word you say, but it gives you that chance to process what you're saying. "How do I message for a different audience?"

Kelly:

One of your areas of expertise is polar meteorology, which sounds like a very interesting field. What type of work do polar meteorologists engage in?

Alice:

Polar meteorologists, their goal is to really understand the atmosphere in The Arctic or The Antarctic, so the two poles of the earth, these really extreme locations, and how the atmosphere interacts with the surfaces below. So that might be sea ice or the ocean or glaciers or maybe land. There's lots of possibilities in the polar regions. They're also interested in how whatever is going on in The Arctic or Antarctic might affect the globe at lower latitudes, so the places where probably most people listening to this live, and in turn, how those places, the lower latitudes, might affect The Poles, so the interactions between different parts of the globe. The Poles are very extreme places. They're really dark and cold and windy. They're usually pretty dry. Antarctica is the largest desert in the world. It doesn't get very much precipitation at all. And so polar meteorologists are really working on some of the most extreme types of atmospheric conditions and behavior that can happen around the whole globe. I think that's

really exciting. That's what draws me to polar meteorology, and I think from talking to others in this field, that's often what draws them as well.

Kelly:

Have you had the opportunity to go to either of those areas yourself?

Alice:

I have. I've been really lucky. I went to Antarctica in graduate school, not directly associated with my research project, but on a project that my advisor had. They needed field hands to help install and fix automatic weather stations, or AWS, around the continent. So I got to go for six weeks, basically January through early February, so that's their summer. And we were able to fly around the continent on planes and helicopters fixing these AWS. And so that was really great because we got to go to all these locations that you basically wouldn't otherwise be able to see and experience those extreme conditions firsthand. Even though it's summer, it can still get very cold and very windy. And so some of the places we were fixing the AWS, one in particular, the anemometer had actually been impaled by the spike it was on because the winds were so strong that it couldn't handle those conditions, and we were putting in a special anemometer for extreme high wind speed conditions. And I actually talked to a graduate student just last week, who's using the data from that station, and was surprised to hear that I'd helped install that, so that was rewarding to hear.

Alice:

I did get a chance to go to Utqiagvik, which used to be called Barrow, in Alaska. That's the northern-most point in Alaska. This was just a week-long sea ice summer camp I went to. "Summer camp." I use that term loosely. It was a project between Marika Holland and Donald Perovich, two well-known sea ice scientists that was trying to bring observationalists and modelers together, so we could talk about the way that we all study sea ice and understand some of the limitations or strengths that each method had and how we'd be able to work together. So that was a relationship skill-building workshop, and that was really great too, but I've never been out on The Arctic Ocean. I'd like to go on an icebreaker someday, but I don't know when that might happen.

Kelly:

It sounds like an incredible experience. So Antarctica, was it everything you expected it to be, or was there anything that you were surprised about when you got there?

Alice:

Boy, I think there's always going to be some unexpected things. One thing, not science-related that I found really hilarious that I didn't know what happened is they have a really complex recycling system around McMurdo Station, but they have all these comedic labels on all of the recycling boxes that are really funny for the scientists. So one of the recycling boxes, it was listed that you were supposed to put in there your hopes and dreams, in addition to whatever else it's contain. But I mean, it's really important that they do as much recycling as they can because anything that comes to the continent has to be shipped back off. It takes a lot of energy and manpower to get all of those resources to the continent and then back off because you can't just leave them there and liter the environment. That's part of The Antarctic Treaty that you have to remove all your waste as well.

Alice:

I think one of the most awe-inspiring parts of it was when you were flying over parts of the ice sheet, just seeing ice as far as you could see in every direction... This is parts where you're away from the coast... and knowing that the ice itself is more than a mile thick and just the sheer amount of ice on the continent is pretty fantastic. And you know that, but you don't really know that until you see that. And even then, it puts into perspective how tiny we are, and yet, humans are still able to impact the planet and the climate so much. And these giant ice sheets that make you feel like a tiny insignificant aunt, I think that's pretty humbling as well. I will say the Transantarctic Mountains... I really like mountains. I grew up in Colorado. Mountains are my thing. They were just so beautiful. You don't see that over most of the continent. You really only see the mountains if you're along the coast or along those Transantarctic Mountains, but I really thought those were great.

Rex:

Alice, what would you say was your first job in the field, and then how did you end up at NCAR?

Alice:

My first job, in atmospheric science, I would say was a summer turn at Colorado State University while I was in college. This is one of those things where I realized I'd done a summer internship in laser physics. I really didn't like that. I was trying to do different things. And so I went to Colorado State University, in their atmospheric sciences department, and I didn't end up working on polar science, but I did work on understanding climate models and how numerical discretization happens for the models. While I knew I didn't want to do that, I'd also realized the other parts of atmospheric science that I learned that summer talking to other graduate students and at this summer graduate student colloquia that I also attended made me realize that I was really interested in that and narrow down what I did want to do. That happened the summer between my junior and senior years of college. So then, my senior year of college, I made sure to take an atmospheric science class that was offered not through the physics department but through the environmental sciences department. And I really enjoyed aspects of that as well. And so that helped me narrow down that I wanted to follow atmospheric science, at least as a possibility for graduate school. So I'd say that was my first job. I mean, I got paid for that, but it's still a summer internship.

Alice:

In graduate school, I started graduate school just as a regular graduate research assistant. And then, after two years, my supervisor ended up hiring me as a professional research assistant. So this was a job I had while I was getting my degree. And there were definitely pros and cons to this, but one pro, it was a real job, and I had a real salary, real benefits. That was great. It covered my tuition, so I didn't have to pay for anything. And basically, my job was to help develop the atmospheric component of a Regional Coupled Arctic System Model. So it was very closely aligned with what I wanted to do for my PhD research anyway.

Alice:

So that was really my first job, and it was more, I would say, high stakes than a graduate research assistantship in that we had a deliverable. We needed to make this thing work. We needed to make this model work. Sometimes it didn't work. And I got a lot of good exposure working with other scientists at Los Alamos National Lab and the Naval Postgraduate School, other universities, and we all had to really work together to make this work. And that's also when I learned that I really liked being part of a team. I

didn't want to be off in my own corner doing research entirely alone. I liked to feel like I was part of a bigger project.

Alice:

And that led me to my position at NCAR. I started at NCAR as a postdoc, and I was investigating mixing in the Southern Ocean, so a very niche research topic, but I really liked being at NCAR. The lab that I work in is extremely collaborative. Everyone's really friendly and supportive. In non-COVID times, people's doors are open and you could just walk out and knock on someone's door and say, "Hey, I'm having this problem with this, or I was thinking about whatever" and sit and talk to them. And they were always happy to give you some of their time and talk to you about what's going on. And so I sought out opportunities to stay there, and that's how I ended up in this project scientist position working on different projects while at NCAR.

Rex:

That's an incredibly wonderful career path that you've had so far. Congratulations on everything you've achieved. I had a couple more questions based on the difference between a graduate research assistant as a student and a professional research assistant. You touched on the cons in terms of the stakes being higher, and you touched on the pros in terms of receiving a salary and having your tuition covered. Besides the high-stakes nature of the position, I didn't hear that many cons. Were there any other aspects that felt more demanding or others would want to weigh if they were offered this opportunity?

Alice:

I would say, in general, the pros outweighed the cons, for sure. I think the other thing that I would say maybe was a con, and more in retrospect, was that sometimes when you're a graduate student, opportunities come up where you could travel to another university and be a visiting graduate student for six months or maybe go on a cruise to The Arctic Ocean or something and just working on a ship like that. And I felt like because I had this real job, where I needed to actually have results, that it was harder for me to feel comfortable taking those once-in-a-lifetime or once-in-a-career opportunities.

Alice:

So I have several peers who went on cruises to The Southern Ocean and those can take several months or something like that. And I didn't feel like I could go on a ship that wouldn't really have internet for several months and then leave the responsibilities of model development that I was responsible for, just leave them on the side for that time because I wanted to do this random, fun, probably, field experience. So I'd say that was the only thing, but I would say on the whole, it was a good opportunity. And I think the key is just being able to talk to your supervisor about what the expectations are. Maybe I could have pushed harder with my supervisor and asked him. I think sometimes I felt like I would be dropping the ball, and so I didn't necessarily ask for permission or if he thought those things would be okay when maybe I should have.

Kelly:

Could you walk us through a typical day on the job as a project scientist to give our listeners an idea of what it would be like to work at NCAR?

Alice:

Sure. So I think one of the great things about being a scientist is it makes it a little tough to describe a typical day because every day is a little bit different, usually, and that can be fun, but some days I end up feeling like I'm being pulled in a million different directions, and it can be harder to feel like I made progress. But I would say maybe, in general, a typical day looks like I wake up. I get my kids out the door. I check email. I often start a Jupyter session. That's a Python analysis tool on the supercomputers. I open a terminal window to check whatever model jobs I might have had done or analysis jobs that I often try to get those going overnight, so that when you come back the next day you have results.

Alice:

And then the rest of the day, after that initial checking in with everything, is split between meetings with collaborators. These all happen on Zoom now, but in the past, I still had some Zoom meetings. Those are usually to discuss results or projects or maybe brainstorm new projects. Some days I attend seminars. Almost every day, I do analysis in Jupiter and make figures, maybe write some in a paper, or review papers. I try to get out for a short walk every day. One of the things I really like about this job is most days I can usually work a pretty normal work day. And then, at the end of the day, I really make an effort to leave my work back in the office or, these days, in my home office and not do work all evening long. Some days when you have a big deadline coming up or you're presenting at a conference, you can't do that, but I don't feel like every day I have to work. That's one of the things I like is that I can have a good work-life balance in this position.

Kelly:

So what are your set hours, usually? What time do you start and end?

Alice:

I would say, usually, I work from about 8:00 to 4:30ish. And a lot of that for me now is set based on childcare availability, which the hours have changed a bit with the pandemic. In graduate school, I was more likely to work early in the morning and take some time off in the middle of the day to go on a bike ride or go on a run and then work later into the evening, but that's just not possible with family life these days.

Rex:

Besides the work-life balance being agreeable, are there any other parts of the job that you like the most?

Alice:

Yeah, I really like my job, I will say. I like working as part of a team at NCAR. I already talked a lot about just the atmosphere there. I like being on different projects as a project scientist in that I often have several things I'm working on. Some days that can get to be a lot, but I liked having a couple projects going on at once, at least, because I feel like then, if you get stuck in something, there's another project you can think about for a while and then come back to whatever problem you were having. So I really like having those multiple things going on. I think it can get to be too much. I feel like having two or three projects to really focus on is probably ideal. And sometimes when you have four or five or six or, I don't know, some people might have even more, it can be really hard to just transition your brain to the different projects and actually do focused good work during that time, or at least it's not something I have been able to perfect yet with the larger number of projects.

Kelly:

So it almost sounds like what you like most about your job is also one of the biggest challenges about your job is all the different things that are going on at once, the different projects, and how it's a varied position.

Alice:

Yeah, I think that's true. I mean, I think bottom line why a lot of people become scientists is you like learning about the world and how it works. But one of the challenges of being a scientist is that you're constantly learning. So I, and a lot of people I talk to, we never really feel like we're the experts in stuff. You're always pushing the boundary and frequently feeling like, "Well, I'm going to try this thing," but you don't necessarily know it's going to work. And so you're always on the edge and uncertain about if the path you're taking is the right one or this new thing you're trying, is it going to give you any results? I think that's the nature of being a scientist, a research-type scientist. I think maybe if you have a more applied job... Maybe you work in industry or something like that... maybe you get a little bit more into like, "I am an expert in this, and I do this one thing a lot," and you do feel more certain with it.

Alice:

But especially in academic research, I think if you're going to follow that as a career, you need to become comfortable with sometimes really not knowing the answer or what you're doing and being willing to experiment. So I think it's both liberating and exciting, but also can be a little bit overwhelming when you feel like you're doing that and it's getting you nowhere.

Rex:

One of my favorite things to say is, "I don't know the answer, but I'm happy to learn." It's really fulfilling. And I think you touched on that really well. Could you tell us about some of the best ways to communicate climate and polar science to varied audiences?

Alice:

Sure. I think one of the things that I think is best when communicating with all sorts of audiences is really trying to make a connection with the people who you're talking to. And this can be very different depending on if you're talking to kids or the general public or the scientific audience, or maybe you're doing an interview with a national TV and that audience might be different than, say, your local community general public. So I think finding ways to connect to whatever audience you're talking to is really crucial.

Alice:

For kids, that can be things like, "Okay, let's decide to measure ice thickness in how many first-graders does it take to make ice this thick?" Something like that that's very... They can grasp that, whereas when you're talking to maybe more adult audiences, you can talk more about like, "Okay, your commute" or something like that that they'll be able to relate to. So I think that's really important when communicating with any audience. I sometimes talk about my family or things that have happened locally. I mentioned there was a windstorm. So if I was going to talk about winds, I might put that in context of the windstorm that probably most of the audience experienced, something like that. I think that's pretty crucial. And, like I said, I've practiced doing this in different audiences, working with individual K through 12 classes or NCAR outreach activities or lectures at public locations. So it's

definitely something you need to practice and try rather than something that necessarily comes naturally.

Rex:

So how many first-graders does it take?

Alice:

Well, it depends what part of the ice you're talking about. New ice that's maybe one-year-old is about one first-grader thick. And if you're talking about very thick ice, in the Canadian Archipelago, then it might be like six or seven first-graders thick.

Rex:

Wow.

Kelly:

That's all awesome, though, to be able to put it in that type of context. I think that's a great way to do it. Alice, you're the chair of the AMS Committee on Polar Meteorology and Oceanography, and thank you very much for your volunteer service for that. What are some of the goals of that committee?

Alice:

In short, the Polar AMS Committee seeks to be a forum for integration and dissemination of knowledge about the polar system. So that's both meteorology but also oceanography and, increasingly, sea ice and terrestrial sciences because they're all really connected. So it's really all of the polar system, in general. And then we seek to also understand how that knowledge can be applied to specific problems that might affect the actual general public or, like I said, people down at lower latitudes, where the majority of the population lives. We also communicate to the AMS, in general, and other organizations, relevant polar research for whatever they might need us to communicate about.

Alice:

I would say most of our work, what we frequently do, is organize meetings and other educational activities that further those goals. So there was a virtual meeting last year, and we're hoping that there will be an in-person meeting in Madison, Wisconsin, this coming August. Fingers crossed about that, because I think the whole community, everyone I've talked to, is just... They want to be able to see people and talk face to face, assuming that it's safe. The virtual platform is a lot harder to do that. We're also seeking new members for the AMS Polar Committee that would start in January 2023. So if any listeners are interested, feel free to contact me. We want to make sure that we advertise this as broadly as possible to make nomination as equitable as possible too.

Rex:

I'll say that Madison in August is not the most polar climate, but if you hit Madison in January, I think you'd be pretty close to Arctic or Antarctic conditions.

Alice:

That is probably true. One of the challenges we have with organizing the polar-specific meeting is that if you have it in the summer, that's often The Arctic field research season, so people who go in the field

can't attend. And if you have it in winter, that's The Antarctic field research season and so, I mean, if you have it in northern hemisphere winter, that's The Antarctic field research season. And so there's always some part of the community that will have trouble attending no matter what time you have it. But in terms of flight availability and reliability, I think summer is a better bet.

Rex:

So, Alice, what advice do you have for students interested in a career in polar meteorology? Where should they start pursuing this specifically if it's what excites them?

Alice:

Gosh, I think this is really hard because each scientist usually has a different path that they take. I think of this quote, I'm actually not sure who said it, but it goes, "Traveling, there is no path. You make the path by walking." And I think that's pretty true of most scientists that I know. Everyone took their own path. So I don't think there's a formula for how to get here, but I think there are a couple key things that someone might do if they wanted to go down a polar scientist path or at least they think that's what they want to do right now. So, as I mentioned before, acquiring communication and data analysis skills are pretty important. And even if you don't go down the polar climate path, they'll be likely important in almost any technical career you do. I also think just learning how to work as part of a team. So maybe if you're an undergraduate, you could volunteer to do some research with a professor in your department and see if there's someone who does polar climate that you could be involved in that. There are often scholarships to meetings for undergraduates who are doing undergraduate research projects. So that would be a way to dip your toes in and see if you're interested before you have to apply to graduate school.

Alice:

I would also say reach out to people you might be interested in working with, whether that's at a university or a national lab, like where I am. Most people, most scientists that I work with are really friendly. They love talking about science. They're excited about enthusiastic students. They're usually more than happy to talk to people. So if you reach out and just say, "Hey, I want to talk about how you got to where you are, any new research projects you have," they'll often try to make time to talk to you. Everyone's busy, so if they don't write back right away, don't necessarily take it personally. You also might try to seek out summer research programs. NCAR has a few of these. There's a program called SOARS, which is Significant Opportunities for Research in the Atmospheric Sciences. So that might be a possibility for you. And then there are other things like sci parks, which is a more computationally-focused program. These are not necessarily polar specific, but you could also look at universities that have polar research areas and see if they have any summer interns or internships available. That's something you could email a professor about and just say, "Hey, I'm interested in working with you. Do you have any summer positions available?" And just start that conversation.

Alice:

I think, overall, just making sure that you really enjoy what you're working on is pretty crucial. Graduate school and a research career more like a marathon than a sprint. So if you don't enjoy what you're doing, you're going to be pretty unhappy. So it's pretty important to make sure that you at least enjoy or like aspects of what you do. There might be some parts you don't like, but if that's the majority of your job, life's too short to spend it doing something you don't like. So I think there are lots of ways to pursue this. So that's why it's really hard for me to say, "Here's exactly what you should do." But I think reaching

out and talking to people and trying things is probably the best advice I have, then, for being a polar meteorologist

Rex:

I think the advice you gave is incredibly helpful, so thank you very much. Alice, before we end the podcast, we always ask our guests one last fun question unrelated to meteorology. What is one of your favorite books?

Alice:

All right. I love reading. I usually prefer fiction books. I feel like I fall into another world when I'm reading them. And I like reading physical books, I have to say, where you actually have to turn the pages.

Kelly:

Me too.

Rex:

Me three.

Alice:

I think one of my favorites that I've been wanting to read again recently is The Night Circus. I'll often reread favorite books over and over again, but I really like that one, just the whimsy and the magical realism. So I really like that sort of book, but I mean, I have lots of favorite books as well that I re-read over and over again. And I'm looking forward to sharing more of these with my kids as they get older and can actually read on their own too

Kelly:

I'm 99.9% sure I read that book. It sounds super familiar. It was a long time ago, but it was really interesting one.

Alice:

Yeah, it's The Night Circus by Erin Morgenstern.

Kelly:

Yep, I did. I read that. Yes. Well, thanks so much for joining us, Alice, and sharing your work experiences with us.

Alice:

Yeah. Thanks for having me. It's been fun to talk to you guys.

Rex:

That's our show for today. Thank you, again, Alice. Please join us next time, rain or shine. Clear Skies Ahead: Conversations about Careers in Meteorology and Beyond is a podcast by the American Meteorological Society. Our show is produced by Brandon Crose and edited by Peter Trepke. Technical direction is provided by Peter Killelea. Our theme music is composed and performed by Steve Savoie and the show is hosted by Rex Horner and Kelly Savoie. You can learn more about the show online at www.ametsoc.org/clearskies and can contact us at skypodcast@ametsoc.org if you have any feedback or would like to become a future guest.