Transcript for "Bill Sjoberg, consultant with Leverage Information Technology in Lanham, Maryland"

Clear Skies Ahead: Conversations About Careers in Meteorology and Beyond

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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, Bill Sjoberg, a Consultant with leverage information technology in Lanham, Maryland. Welcome, Bill. Thanks so much for joining us today.

Bill Sjoberg:

It's great to be here. I'm excited to have this conversation.

Kelly Savoie:

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

Bill Sjoberg:

Absolutely. So I am a second generation Meteorologist. My father was a National Weather Service Meteorologist for his entire professional career, and he had such a passion for meteorology that I think it just rubbed off on me. And so we moved around a lot. If people from the National Weather Service are listening in, they know that, that you move around a lot. And when we were in Indiana and it was time for me to go to college, there was only one school in Indiana with an undergraduate degree in meteorology, and that was Purdue University. So my school decision was pretty simple. If they accepted me, I was going to go there. My father…I wanted to be a meteorologist for the National Weather Service, and after my father looked at my high school grades, he suggested that the best pathway would be to go with experience. And so he suggested, like him, I become an Air Force Meteorologist and that's what I decided to do.

Emma Collins:

Were there any opportunities that you pursued inside or outside of school that you found were helpful in securing a job?

Bill Sjoberg:

Well, of course I had to become an ROTC cadet, to go into the Air Force, and so that was pretty simple. I just volunteered with the Air Force ROTC program. And as I did that, when my four years came up, it was time to get an assignment from the Air Force and they sent me to Grand Forks, North Dakota. Now, at the time, I knew North Dakota was a state, and I knew where it was, but when I looked at a map and saw it was 60 miles from the Canadian border, I thought, "Oh my, it's going to be cold up there." So that was my first duty assignment in the Air Force. And what started out as a grand plan on my part to stay four years in the Air Force, take my degree to National Weather Service and become a forecaster, didn't pan out. I spent 23 years in the Air Force instead.

Kelly Savoie:

Oh, wow. So for our listeners who aren't familiar with an ROTC program, what does that entail? What do you need to do through your four years of school to be part of that program?

Bill Sjoberg:

Sure. The ROTC programs for all uniformed services result in a commission as an officer in whatever branch of service you are in the ROTC in. And so you have to learn how to be an Air Force, in my case, officer. So there's training, there's drilling, how to salute, how to wear your uniform, how to lead people, and when you graduate, you go right into the Air Force onto active duty and start your career, however long that career may be.

Kelly Savoie:

That's interesting. So do you get college credit for it? And when you're taking your courses, how much additional time and commitment is that on top of the coursework?

Bill Sjoberg:

Well, yeah, you do get some credit, not as much as a normal course, but you learn about military history, you learn about, in my case, the Air Force, how the Air Force came to be, and you learn how to drill, you learn how to salute, you learn how to say, "Yes, sir. No, sir."

Kelly Savoie:

And so once you went into active duty, was that considered your first job in the field?

Bill Sjoberg:

It sure was. It was my first job and my first job was a Forecaster. I was a Forecaster at Grand Forks Air Force Base for B-52s, KC-135 aircraft, for the base itself, for the missile field. So I've had to learn how to be a forecaster in Grand Forks, North Dakota. I already knew how to be an officer in the Air Force, but just like people changing jobs, moving on to another job, you have to learn what it is that is the weather sensitivities in a particular location. So if I'm a National Weather Service forecaster and not moving around, or if I'm changing jobs in the civilian field, I just have to learn my new responsibilities and how to excel at those responsibilities.

Kelly Savoie:

And did that lead to other job opportunities once you left the military?

Bill Sjoberg:

Well, it took me 23 years to leave the military. So I moved around both stateside and I had two overseas assignments with my wife and two children. In fact, our daughter was born in Germany when we were stationed in Germany. And all these different jobs had different responsibilities. And so as I moved up in the ranks and eventually I retired as a lieutenant colonel, then I was a forecaster, and then I moved and continued to be a forecaster for a while. Then I was put in charge of things, and then I was the boss and the commander of a particular unit and I ended up at the Pentagon. So that's how I ended up in Virginia where I am today.

Kelly Savoie:

And what types of other consulting type work have you done in addition to the forecasting?

Bill Sjoberg:

Well, it's interesting. I always loved forecasting, being in the meteorology end of things. When I retired in 2000, I had the opportunity to support NOAA's Low Earth Orbiting Polar Satellite program. And I've actually been doing that in one form or another for the last 23 years. And in doing so, although I wasn't forecasting, I was dealing with a lot of people who use satellite data. So in essence, I've been a user liaison for these 23 years, helping the users, whether they're forecasters or whether they're maritime, the fisheries or the National Ocean Service and other people out there, other users out there, that use satellites, helping them to leverage our capabilities to the maximum extent possible.

Emma Collins:

So it sounds like there's a lot of variability in what you do, maybe, on day to day. Is there any typical day that you could walk us through what you do from hour to hour?

Bill Sjoberg:

Well, it's probably what everybody else is doing, having meetings, setting up workshops, going to workshops, of course. But part of that, what was interesting is with the Low Earth Orbiting Satellite Program that in 2000 was, I call it a PowerPoint program... So it was a concept that was being formulated. And so we helped gather user requirements for these billion dollar satellites, so that when the data starts coming out of the sky that the users are ready to use it. And so part of it is engaging with the users, helping them learn about the capabilities, helping them operationally apply those capabilities, and then listening to them when they say, "Well, can you do this? Have you thought about that?"

And using their feedback to make additional changes in those capabilities. Or in the case of NOAA's Geostationary and the Polar Orbiting Programs, as we look to the future, we're running out of satellites, and so we're going to start defining the next generation of geostationary and low earth orbiting satellites. And the users, whether they're in Alaska or whether they're forecasters or whether they're hydrologists or whether they're cryosphere specialists. Whatever their need for these satellite data and products, will help drive what we buy and what we launch.

Kelly Savoie:

So is there anything in particular that you like most about your job?

Bill Sjoberg:

Well, I'm not a real forecaster anymore, but I know a lot of people that are. And so what I really enjoy is helping the user put these capabilities to best use. And every time they tell me they used our lower

earth orbiting capabilities to help forecast anything from a hurricane to a heavy snowstorm, this data goes into forecast models and various specialized models that drive every decision that's made as these environmental challenges come along. Flooding, ice on the rivers, drought, hurricanes, severe weather, snow storms, all of those things are impacted by these models where our data goes into, and they are able then to save lives and property and protect property. So that's what really gets me up in the morning.

Emma Collins:

It's a good reason to get up in the morning. On the flip side, what are some of the biggest challenges you face working in the field?

Bill Sjoberg:

Well, it's interesting because, and I'm sure our listeners face this as they go to new jobs or start their first job, you don't always feel comfortable that you know what you're doing. So I remember my first tornado warning that I issued and my first blizzard warning that I issued in Grand Forks. And I was just uncertain, "Should I put out this tornado warning because it has really big implications going out there?" And I walked outside of the weather station and I looked up, and some of the listeners will recognize this term, there was an echo free vault right over my head, and that is a big sign of a tornado. And so I ran back inside and that's all I needed. I issued that tornado warning and six miles east of me a tornado touched down and caused damage. And so when you're faced with that challenge, "What should I forecast? When should I forecast it?" That is the challenge.

And you face this. I was on a Sunday morning and I was in Omaha, stationed in Omaha, leading a team of forecasters putting out forecasts for special operations. And somebody came running in and they said, "Sjoberg, we need to forecast." "What for?" “There's a volcano that just went off and we need to know what are we going to do? Is it going to impact? Are we going to have to evacuate? Are we going to have to move aircraft?" That was May 18th, 1980, about 11 o'clock in the morning in Omaha, and it was Mount St. Helens and I think everybody recognizes that. I never had studied Volcanology at Purdue, I never put out a volcanic ash forecast. I had no idea what to do. But fortunately, there were other people there, and we all huddled and we all started grabbing satellite imagery, and we all started trying to look at the upper air winds and trying to decide where that volcanic ash was going to go. And it just kept going east and east. And believe it or not, after two weeks, it had completely circled the globe.

Kelly Savoie:

That's amazing. And talk about having to think on your feet.

Bill Sjoberg:

Yes, exactly.

Kelly Savoie:

That happens a lot with meteorologists. I know lots of times broadcast meteorologists are considered, they're station scientists, and whatever it is, whether it's an earthquake, a volcano, they're looked to be able to come up with some information on it. So I'm glad you had other people there where you could all get together and figure it out.

Bill Sjoberg:

Well, that's a lesson learned is, do not ever try to... If you're over your head, beyond your capability, find some help. And we certainly…we work with the fishery folks that when a certain season comes up, they say, "Where are all the fish? They're normally here. Why aren't they here? Where are they?" And that has a huge economic impact on a fleet that is going out to catch fish and all of a sudden can't find them. And the reason is because the water might be warmer than usual, and so the fish have moved on. Or maybe if it's not too bad, they've moved deeper where the cooler water is. So that impacts people's livelihood because they may find out they can no longer fish where they're fishing. They can no longer catch what they used to catch because the environment has changed.

Kelly Savoie:

Well, it sounds like meteorologists and forecasters are very important. So do you see the future job market in your field evolving, if at all?

Bill Sjoberg:

Well, one of the things that we need to do, the younger generation is, and they are, I know they are, but to use the technology that's out there, whether it's AI, whether it's models, the human in the loop will always be needed. Okay. But you need these models because I defy anybody to say, they can look out their window and tell me what the weather's going to be like on two days from now. So we have these models that help us prepare and tell us what the weather's going to be in the future, and the satellites feed those models.

So over the years, back when I was a young forecaster in Grand Forks, our models were not nearly as robust and not nearly as accurate as they are now. And that's because of the size of computers, that's because of the data available to it. So the forecasters need to use that. They need to use the tools and help build the tools for the future and then determine where their role can help make this happen. Because people want to talk to people. People will always want to talk to, hear a human voice giving a forecast. And so there will always be a human in the loop.

Emma Collins:

So in addition to embracing that technology, what advice do you have for job seekers who are looking to establish a career at NOAA?

Bill Sjoberg:

Well, my advice is, we have every year at the American Meteorological Society annual meeting, which is coming up in Baltimore at the end of this month, a little plug there. We have an event where we bring everybody in and we talk to the students and the early career professionals. And what I tell them as I sit at that table is, I tell them, "First, network, network, network. Talk to people. Find out what you're interested in and then if you're interested in a particular aspect of meteorology, find somebody who's doing that now and contact them. And that might be listening to an oral presentation and jotting down their name."

"It might be reading the BAMS article or a technical journal and finding out who's doing the work that you're interested in and contact them and talk to them and say, how can I do what you are doing? It sounds like a lot of fun. So find your passion first and then find other people who have that same passion and contact them, see what's available." And of course, the normal government sites that have jobs on it, that's things you can do. But you've got to network and find people because those people are going to help you get where you want to go.

Kelly Savoie:

And I think it's really important too, when you are networking, that you keep in touch with people that you meet. So while you're going through school, it's a good idea to provide these people with an update on how you're doing, what you're doing so that these people that they meet won't forget about them. I think that's really important. And I think sometimes students forget about that. They'll meet somebody, they'll exchange contact information, but then they don't follow up periodically. And by doing so, you really are going to stay in that person's head. And I think it's a good opportunity for them to just remember you, when you do graduate, they won't be like, "Oh, who is this person? I don't remember being them, like, three years ago." But if you keep in touch with these people and let them know how you're doing and what you're doing, that's definitely a better way to get a job as well.

Bill Sjoberg:

Well, and that's why I'm so happy when I see returnees to our speed networking session at AMS, because I know that's exactly what they're doing. They're staying in contact, they're looking for those opportunities. And even in the contractor world, and there's a lot of contractors out there, I'm one of them that are supporting NOAA. When someone wins a contract, they don't always have the bodies that they need to fulfill their commitment to that contract. And so even if you talk to somebody two months ago, three months ago, and they're like, "Oh, we don't have anything really for you."

That may change very quickly if they win a contract and now they need to find somebody to fill the positions that they've committed themselves to. So keep in contact. And when I retired, that was the first time that I had a job interview, but before I retired, I contacted some of my network and asked them to keep their ear to the ground to see if there's any opportunity. And my last day on an active duty, I had a job interview because one of my friends had heard that there was an opening and had suggested my name and given my resume to the hiring authorities. And I was hired, and I started my post-military career after a nice long Alaskan cruise.

Kelly Savoie:

So that's a really good segue to my next question. If you were hiring someone in your department, what would you look for in a resume or a cover letter?

Bill Sjoberg:

Well, first off, I'd look for somebody who went the extra mile, someone who put in an extra effort. Okay. So someone who has participated in professional organizations like AMS, and has tried to expand their professional horizons as best they can. But I'm also looking for leadership for people who have a lot of enthusiasm and have just a passion for what they're doing. And so you need to, as you put a resume together, not just put the details, but as specific as possible, not only did you do something, but what was the impact of what you did? Can you quantify that? Can you put that in some meaningful dollars and cents or economic benefit? Some sort of hard hitting details.

Emma Collins:

A great way to stand out from the pack. Definitely great advice for those submitting their resumes.

Bill Sjoberg:

Absolutely.

Emma Collins:

Well, Bill, we're 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 our show. So what is your all time favorite book?

Bill Sjoberg:

Well, let me tell you one of my favorite books, and I mentioned that I live in Virginia. It took me a little bit to realize that Virginia was a big area of conflict during the Civil War. So the first five or six years, I became a real Civil War aficionado. And so I would read about various battles, I'd read about various aspects of the Civil War, and then go out and go to the battlefields around this area. And some of them very close were less than five miles from my house is Bull Run Battlefield, the first battle of the Civil War. So instead of a specific book per se, it was a category. So for probably about 10 years, most of my reading focused on the Civil War and what was going on, because I knew, I was just right down the road there. I can go jump in the car and drive down there and see it. And I just recently finished a book on Alexander the Great.

Kelly Savoie:

History buff.

Emma Collins:

Yes.

Bill Sjoberg:

Well, and if you noticed a common theme, military. So even though I'm no longer in the military, it's still in me, I suppose.

Kelly Savoie:

Well, thanks so much for joining us, Bill, and sharing your work experiences with us.

Bill Sjoberg:

Well, thank you for doing this. I really, by the way, enjoy these recordings. I've listened to many of them and appreciate the effort you all put into it.

Emma Collins:

Oh, we're happy to talk to you. And not only just talk to you, but talk to a fan. 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 as a podcast by the American Meteorological Society. Our show is edited by Johnny Lay, 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/clear skies. And you can contact us at Skypodcast@ametsoc.org if you have any feedback or would like to become a future guest.