

## **Meet Zack Byko, Commercial Research Manager at Mars Snackfood U.S., located in Hackettstown, NJ**



For students and others looking to move into private sector meteorology, my experience is that the opportunities are enormous. Those interested in applying the skills they've learned in the meteorology curriculum or on the job to related applications can be particularly successful in the private sector. I am extremely happy with my private sector career and consider myself lucky to be a meteorologist.

### **How did you first get interested in weather?**

Like so many meteorologists, my interest in the weather started when I was only 4 or 5 years old. Growing up in Southern New England, snowstorms caught my attention the most; I could barely sleep at night if a big snow event was on the way! I grew up with The Weather Channel and that was my primary source of weather information. Radar and satellite images intrigued me and I enjoyed watching storm systems move across the nation and evolve. As a kid, I even used to draw my own weather maps and present weathercasts to my family, peers, and teachers at school.

By the time I started high school, it was clear that I would go on to become a meteorologist. I learned the skills I needed to become an amateur forecaster by reading National Weather Service technical forecast discussions and online weather discussion boards. Eventually, I learned enough to be able to use numerical weather model guidance to come up with my own forecasts. Through a summer internship I had at the Talcott Mountain Science Center in Avon, CT, I got connected to a central Connecticut-based website. By my junior year in high school, I began posting my forecasts onto this site almost everyday. I was hooked!

### **How did you find your first job, and what was it like?**

Finding a job after finishing my M.S. in meteorology at Penn State was a challenge in that I felt overwhelmed by the pressure of making the 'right' career decision. Up until that point in life, I was on a fairly well-defined path. There was no question that I would study meteorology as an undergraduate, and since I always loved to learn, I also knew I would try graduate school. Upon graduating, I felt that for the first time ever there were many possible paths to choose from that would ultimately lead me to different places. This was definitely a challenge to manage.

What also complicated matters was that my interests are quite broad. With private sector opportunities spanning such a wide range of fields, I applied to private sector jobs in traditional weather forecasting, weather for energy and financial markets, and broadcast meteorology. In fact, I was pretty attached to the idea of giving broadcasting a try. However, the right TV weather job didn't come up, and several of my mentors and advisors suggested that I might really enjoy a more applied role.

One afternoon, I received an email from a faculty member at Penn State with a job posting attached for the open position of Commercial Research Manager at Mars Snackfood U.S. At first I wondered why a food company was interested in hiring a meteorologist. But as I read the job description, the answer became clear. Mars was looking for a candidate who not only had a background in meteorology, but also had analytical, quantitative, and communication skills. A meteorologist has all these things! I applied for the job and was called down for an interview the following week. I always told myself that when I found the right job, I'd know it, and this was no exception. The interview went spectacularly and I was excited about the possibility of joining the staff of the world's largest confectionary company. There was no question in my mind that I would say 'Yes' if I received a job offer, which is exactly what happened.

### **How would you describe your current job and how is it different from a forecasting job and other jobs you've had?**

My role at Mars is that of a commodity analyst. Part of this includes weather/climate forecasting, developing outlooks on weekly to seasonal timescales. In this kind of applied role, it is not only the forecast that counts, but it is also being able to translate that forecast into implications for agricultural and energy commodities. Once I develop the weather forecast, I then spend considerable time assessing and communicating the significance of the weather outlook. Additionally, I do fundamental commodity market analysis as well. Though I had little formal training in this area (the only economics class I took was AP Economics my senior year of high school), I have always had an interest in markets and the economy. Meteorologists are taught the same basic skills as economists, so learning this new discipline has been both fun and challenging for me.

Though I do some freelance broadcast meteorology as a hobby, my job at Mars is the only full-time job I have had in the field, so my personal experiences for comparison are limited. However, one major difference from a traditional forecasting job is the emphasis placed on answering the question, "So, why does this forecast matter?" It's not only about getting the forecast right, because the truth is that a lot of meteorologists can get the forecast right. It's about providing decision support and clearly explaining the weather's impact. For instance, once I develop a winter temperature forecast, I will then qualify and quantify what that may mean for U.S. energy markets. Explaining the business relevance is at the heart of what I do.



**Figure 1. Zack inspecting the cotton crop in the southeast U.S. during August 2007.**

### **Is forecasting the weather part of your job anymore?**

As alluded to above, I do some weather forecasting, though it is a part of developing a broader, fundamental view of supply and demand for agricultural and energy commodities. For students interesting in broadening their

background from pure weather forecasting to more of an applied approach, I see tremendous opportunities. In the future, meteorologists will likely be asked more and more to take on applied roles as the needs of the private sector change. And with the rigorous curriculum that meteorology students complete to obtain a degree, they are well-prepared to take on applied roles, assuming they are willing to investigate weather's myriad applications.

### **What would you say to those interested in working in the private sector?**

The private sector has some of the best opportunities for meteorologists. One thing to remember about the private sector is that private institutions are looking to make money. They hire someone because they believe a job candidate will positively impact their profit and loss statements. With that in mind, private companies are looking to add the most talented people they can to their staffs. If you are looking to go into the private sector, you must be highly skilled. Energy companies and private weather forecasting firms want to hire the most accurate weather forecaster they can. A company involved with risk management is looking for someone who is strong in analysis, communication, and perhaps computer skills. Private sector employers are looking for exceptionally talented people, so you must be willing to work, learn, and excel if you're considering the private sector.

However, private sector firms also value soft skills. They want to hire team players who work well in collaborative group environments. There are many people who can do a job, but it is how you do your job that can really get you noticed. Are you positively contributing to the workplace morale? Are you helping colleagues improve, essentially delivering performance through others? Companies oftentimes find themselves debating between offering a job to one of two qualified candidates, and usually choose the one whose has the superior soft skills.

Lastly, be open to change and trying different things. I don't want to sound cliché here, but the most successful people are willing to take risks and try something new. For those just out of school, what is stopping you from trying an opportunity different from what you always envisioned yourself doing? If a job sounds interesting, at the very least you should apply for it. Also, be open to relocation. If you limit yourself to a small geographic area, you're also limiting your career opportunities.