

Improving public safety through customer experience at the National Weather Service

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Laura Furgione, the NWS's former deputy director, discusses where the customer fits in with the agency's mission of protecting lives and property.

Laura Furgione began her career with the National Weather Service (NWS) as a summer intern in Hawaii in 1992. Over the course of a 24-year career, she served as a warning-coordination meteorologist in North Carolina, a regional director in Alaska, and second in command of the NWS from 2010 until her departure last December. In her last two years, she and the head of the agency led a major transformation effort focused on improving service delivery to the NWS's core partners in the emergency-management community. She recently sat down with McKinsey's Kristin Allstadt and Sarah Tucker-Ray to discuss her vision for a National Weather Service that puts its customers—and their safety—first.

McKinsey: *How did you arrive at your thinking about the importance of customer experience at the National Weather Service?*

Laura Furgione: We were always customer focused to some extent, for more than 100 years, but it was a customer focus driven by forecast production. Our customers—we called them partners—would expect that we would have forecast products to them by a certain time, and we basically organized ourselves as an assembly line to get that done.

That created a certain culture within the weather service that the production was what mattered. When I was a forecaster on a shift—let's say it's a cold, clear night with no major weather on the horizon for hours—I could produce all of the output I needed to produce, I could do other research of

interest, or take it pretty easy for the rest of my shift. The only time you really engaged with a partner as a line forecaster was when they called you to complain that a radio transmitter was down or that there was some error in the forecast. And this was perfectly normal—it's just how the organization worked.

Hurricane Katrina was what really challenged that paradigm for us. We found out that we needed to deliver the message more forcefully, communicating that people would die if they didn't act. We realized that we couldn't just issue forecasts—we needed to get the message to the last mile. We needed to convey the *so what* of the forecast.

We went a lot further since and learned that we had to get not just *to* but *through* the last mile. We needed to make sure that the public was acting on our information and that our partners were amplifying it and using it to make better decisions in support of public safety. We needed to shift from being production oriented to being service oriented. A forecast's value is only that it affects people's decisions for the better.

McKinsey: *How did you start to make that shift? How did you manage securing buy-in from the organization?*

Laura Furgione: As a leadership group, we were actually behind the curve on that: it was obvious to many folks at the front line of the organization, those in the field, that this was the way we needed

to go. It was especially true for those who had experienced a major event like a Katrina, a Gulf oil spill, or the series of deadly tornadoes that swept the Southeast in 2011. But we still had a long way to go, because there were pockets of the organization that were on board with that thinking, and others that were less so.

What we needed to do—and are now doing—is invest in building capabilities. We did more training in soft skills—communication, customer service, leadership, collaboration. We started to do research on our partners’ needs and had a team of people dedicated to social science. The NWS is a science-based service organization, and it needs to make sure its workforce is best in class in science and skills needed to work with partners.

McKinsey: *How did you rally the organization to change?*

Laura Furgione: We started by being united in our commitment to putting partners and the impact of forecasts front and center. This is the “what does it mean for me” element of what the science and models tell us. We emphasized that serving partners is about protecting the public, that NWS is a public-safety agency, and that its information is only valuable if people understand it and act on it. A precise forecast that is not understood or heard does not have value. We also worked on clarifying roles internally and how we did business to ensure that every person in the organization—not just the front line but also our supporting scientists, developers, and technicians—saw their connection to serving partners and the importance of their role in delivering the mission.

We went back to our mission statement—“To provide weather, water, and climate data, forecasts and warnings, for the protection of life and

property and the enhancement of the national economy”—and started thinking about it in a fundamentally different way. There are two parts to it: the first has to do with forecast production, but the second has to do with the outcomes, the protection of lives and property. The bridge between those things is great service that is driven by an insight rooted in your partner’s context and needs, by communicating the possible impact of weather to the public and our partners. The two parts of our mission are why NWS calls itself a science-based service agency.

We came to refer to this as IDSS—impact-based decision support services. Providing those is now at the center of how NWS describes its mission and organizes itself to meet it. We did a lot of work in the past few years to define what great IDSS looks like, to celebrate examples of it that we see in the field, and to codify how we do it nationally. Consistency is important to NWS’s partners, given that they often interact with more than one of its approximately 150 field offices.

McKinsey: *Tell us more about who NWS considers its core customers to be.*

Laura Furgione: Essentially, it’s the emergency-management community and the public overall. We developed a model for IDSS that is now being implemented to help achieve the maximum impact for public safety with the resources the agency has.

The idea is that NWS needs to focus on deepening its relationships with the folks who are really at the front line of protecting the public from hazardous weather—people in the state and local emergency-management community, and nationally at DHS and FEMA.¹ These are the people who can really amplify the message and get the public moving in hazardous situations. We focused on getting

them what they needed to sound the alarm and make decisions, such as the need for people to evacuate. The agency can help them to think about how to deploy assets and how to get the word out so they can ensure vulnerable populations are protected. While NWS focuses its resources on the emergency-management community, the agency will also make sure all of its forecast products and data continue to be publicly available in the form that everyone is used to. The agency plans to unlock people's time from activities today that are no longer necessary to meet its mission—for example, having individual people launch weather balloons, whereas machines exist that can do this—and shift that time to serve NWS's most important partners who are asking for a deeper level of service. This shift lets the agency meet increasing demand with its highly motivated and expert workforce.

McKinsey: *What was your biggest challenge?*

Laura Furgione: I think the biggest challenge was probably just learning how to change as an organization. It sounds simple, but NWS is a legacy organization and has had some real difficulties in making lasting change. The agency needs to recreate itself as an entity that is agile and capable of change. In the past, we really weren't, and this reflected poorly on our organization. People would point out some of the ways we did things and joke about us. "Their messages are all in capital letters," they would say, or "They aren't using the latest tools," or "They have people manually launching balloons," and so on.

But we started to make it part of the way we do business. We changed the letter case on our communications. We got with the times there—with the Internet now being such a huge part of our culture, the all-caps messages felt like we were yelling at people. We changed that, and we made the NWS consistent with other sources of information and how the public and our partners

want to receive information. It seems like a little thing, but it showed that the NWS could actually make a change and come out of the dark ages.

We made a lot of those little changes that built up our partners' trust and allowed us to develop the kinds of relationships we needed to deliver IDSS and really help our partners make decisions.

It used to be that we were never invited to emergency-planning exercises, that we would never see the inside of a state or county emergency-operations center. We were an afterthought. But we worked hard to really embed with our users, understand their lingo, "speak their speak," so we could help them understand weather threats in their own terms. We showed our partners that we could change how we operate and be more consistently responsive to their needs.

McKinsey: *What else can the NWS do to keep changing and continue to develop the capacity to change?*

Laura Furgione: I think it needs to be more diverse, more reflective of the society that it is striving to protect. That means building a workforce that is more diverse in traditional ways, with a better gender balance and more varied racial demographics. But it also means being more intellectually diverse. At the end of the day, the NWS will always be hiring mathematicians and physical scientists, but it needs to do a better job of selecting for and cultivating the leadership and collaboration skills it needs to build deep relationships with its partners.

McKinsey: *What will the focus be over the next few years?*

Laura Furgione: The NWS will get better at measuring customer satisfaction. It actually has to go deeper: it's not just whether partners are

satisfied or not, but whether they are actually using the agency's products and services in their decision making, and the extent to which the products and services are really what they need to protect the public. We want to make sure they are actually using the information to make decisions.

The NWS also wants to keep building this capacity to change, and really build on the strengths of its workforce to do so. We conducted an internal organizational-health study last year, and our motivation scores were off the charts. The people who work at the NWS, many of them knew from the third grade that they wanted to be a meteorologist and wanted to work for the agency. The majority of the staff are meteorologists and hydrologists, and they are hardwired to be passionate about weather, water, and forecasting.

I think NWS needs to harness that energy and excitement and get people just as excited about the last mile of the forecast—not just making a great, accurate forecast, but communicating its impact in a way that serves the nation and the community. The agency has got to become more innovative to do it; it actually *has* to change in order to remain relevant, to stay in the conversation, and meet its mission. ■

¹ The Department of Homeland Security, and the Federal Emergency Management Agency.

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