

Perspective

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National Weather Service

Restructuring the National Weather Service

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The weather is changing. So is weather forecasting. We now produce more accurate forecasts with greater lead times than ever before, especially for extreme events. But, as we have seen, the value of these improved forecasts can only be realized through the ability to connect these forecasts and related warnings to decision makers throughout government as well as the general public.

To that end, the National Weather Service (NWS) codified in its 2011 strategic plan the goal to provide “Impact Based Decision Support Services” to our core partners in all levels of government in order to build a “Weather-Ready Nation.” The National Academy of Sciences (NAS) and the National Academy of Public Administration (NAPA) in 2012 and 2013, respectively, supported the NWS vision, but recommended that achieving it would require changes in NWS’s organizational structure and business processes.

For years, the NWS had been using 17 disconnected budget categories that were difficult to defend and manage. The Headquarters (HQ) organization was unchanged since before the last restructuring in the 1990s, and was not aligned with the budget structure. Planning, budgeting, and corporate decision making were disorganized and not bound by robust business principles. When I became director of the NWS in 2013, our leadership team recognized the need to restructure and simplify the NWS congressional budget; reorganize HQ to align management authority with budget authority; and define roles and responsibilities for budget, planning, and decision-making processes. These steps were essential to support the leadership team both in HQ and in field operations.

In 2015, the NWS budget structure was changed to follow the forecast process—a portfolio structure that is transparent and makes sense: Observations; Central Processing (computer infrastructure); Analyze, Forecast, and Support (forecast operations); and

Dissemination (distribution). A fifth budget portfolio, Science and Technology Integration (which includes numerical weather prediction through research and development), is aimed at improving the entire forecast process. A sixth portfolio, Facilities, supports the buildings and sites that house the NWS.

At the same time, we reorganized HQ to map six offices directly to each budget portfolio. In the past, our Chief Financial Officer made budgetary trade-offs, when others in the organization were more suited to make those programmatic decisions. Now, the six new HQ Portfolio Offices plan our budgets based on programs and projects completely aligned with the forecast process.

We also had to make sure that offices with different kinds of expertise could work together to offer useful products and services for our field operations. Thus, we created the “Office of Planning and Programming for Service Delivery” to oversee the Portfolio Offices and assist portfolios with systems engineering support, threading across multiple budget timeframes and Portfolio Offices to shepherd projects from formulation to execution. The Office of the Chief Operating Officer (OCCO) was created to oversee our field forecasting operations on a real-time day-to-day basis. The OCCO ensures we are delivering more accurate and consistent products and services and also identifies and prioritizes the requirements that drive the support from our Portfolio Offices. We gave a much higher priority to training, treating it as a corporate function in the Office of the Chief Learning Officer. We also developed an Office of Organizational Excellence to look over the horizon, with enterprise-wide connections including our partners in the private sector. Lastly, the National Water Center was created to develop and deliver state-of-the-art hydrology prediction and related decision-support services.

In parallel with the budget restructure and reorganization, we sought advice from every corner of the NWS to develop a Governance Document—which

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was ultimately endorsed by all 33 of the NWS senior executives in 2015. The Governance Document formalized our new, collaborative, transparent approach to planning and decision making across HQ and the field, while defining seven topic areas related to strategic and annual planning, budgeting, execution, decision making, and risk management. The Governance codified the concept of an annual operating plan process led by Portfolio Offices where all NWS offices provide input, but also agree to execute to the formulated annual plans and budgets. The Governance also enhanced transparency by establishing four decision-making councils for mission operations/requirements, portfolio integration, enterprise risks, and strategic/executive decisions. The result: (1) collaborative development; (2) efficient execution of plans directed toward day-to-day operations; and (3) longer-term efforts to build a Weather-Ready Nation.

Only a year after implementation, these changes have already paid dividends by making our business operations more understandable and transparent both internally and externally, and have improved execution to planned schedules and budgets. Further, NWS has developed performance metrics to assess and ensure continual progress and is undertaking a communications and training campaign to embed these changes into the fabric of the organization. As with every change management effort, sliding backward is a genuine possibility unless we keep up a sustained effort to continually communicate, assess, and improve.

NWS has improved and strengthened itself, based on several elements, by

- pushing for a strong and effective customer-centered strategic outcome, “Building a Weather-Ready Nation,” that was embraced by our workforce, became a strategic priority in our parent agencies, and aroused interest in the Office of Management and Budget and Congress to be more efficient within existing resources;
- convincing stakeholders that NWS needed to change the budget structure and realign HQ support functions to enable future changes required to evolve the NWS into a more efficient service-oriented organization;
- relying on talented, motivated, agile teams that were able to create and implement quickly;
- recruiting the right leadership to take on these tough challenges;
- providing continual attention, guidance, and support throughout the entirety of these change efforts, and making adjustments quickly based on lessons learned.

This budget restructuring, reorganization, and Governance has provided the foundation to make the future transformational changes to our field organization, operations, and workforce that are ultimately needed to achieve the Weather-Ready Nation vision and create an NWS that is second to none.

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