ABOUT THE AUTHOR

Julie A. Pollitt is currently a Science and Technology Fellow in the U.S. Congress, working on military aerospace issues. Previously she was a project manager on a variety of programs at NASA's Ames Research Center, where she began her aerospace career in 1988. In future job assignments she hopes to blend her technical background, project management experience and her knowledge of the workings of Congress.

Even Politics is Project Work (Or the US Congress is Looking for a Few Good Project Managers)

by Julie A. Pollitt

Why put my career at NASA on hold for a year to become a Science and Technology Policy Fellow on Capitol Hill? The way I look at it, why not? What does working in the U.S. Congress have in common with working as a project manager in the world of aerospace? Surprisingly, a lot!

I had been working in the civil aerospace world for 12 years, at least half of them as a project manager, and all with NASA. I thought Congress would be an interesting change, a way to broaden my background. I wanted to understand the breadth of national aerospace policies, both civil and military, and from that perspective Congress is the center of the action. In addition, I wanted to see how decision-making in Congress affects what we work on at NASA and at other federal agencies. My ticket to Capitol Hill came by way of the American Society of Mechanical Engineers Federal Government Fellowship Program.[1]

Many people don't realize it, but nowadays almost every issue that comes up on the Hill has a science or technology component to it. Most congressional staff do not have a background in science or engineering. Thus, Science and Technology Policy Fellows are in high demand.

I went to work for Congressman Tony Hall of Dayton, Ohio because he was looking for someone specifically able to work on aerospace issues. Congressman Hall is regarded as a leader on the Hill in pushing for more Research and Development (R&D) in military aerospace. The majority of this science and technology work is done by the Air Force. From my point of view, it was a great opportunity to learn the aspects and issues of military aerospace.

I was responsible for three pieces of legislation for Congressman Hall. These pieces of legislation affect the U.S. Air Force and relate to access-to-space/reusable launch vehicles, aging aircraft, and the insufficient investment in defense aerospace science and technology. Being responsible means that I researched the issues, originated the legislative ideas, drafted the legislation, and sold it to key committees and other offices on the Hill, all within the broad

[1] The American Society of Mechanical Engineers joins approximately thirty other scientific and engineering societies in sending representatives to work in the U.S. Congress each year. These individual fellowship programs are then coordinated under the American Association for the Advancement of Science (AAAS).

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framework established by Representative Hall. I was given full staff responsibility for getting it passed. Passing legislation requires the staffers to work hand-in-hand with the congressman who sells it to his peers. Currently, all three pieces have been passed by the House of Representatives and are in conference negotiation between the House and Senate. This legislation will be part of the National Defense Authorization Bill for FY2002.

Julie Pollitt and Congressman Tony Hall of Ohio in Hall's office on Capitol Hill.

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Of the three, the *Air Force Science and Technology Act for the 21st Century*[2] was by far the most complex. It required me to draw from every aspect of my background as a NASA project manager. This piece of legislation addresses deficiencies within the Air Force's planning and budgeting processes. These processes decide their science and technology program top-line budget and investment portfolio.

[2] This legislation can be found at the following internet address: http://thomas.loc.gov/ by performing a search for Bill HR 2659 from the 107th Congress.

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Congressman Hall, partly because of his close relationship with the Wright-Patterson Air Force Base in Ohio, has been pushing the Air Force to invest more in research and development (R&D) for years. Of all the armed services, the Air Force is the only one whose R&D budget has dropped significantly in the past 10 years--46% since 1989. Perhaps even more alarming, the Air Force budget has potential gaps in future technologies, such as those to address emerging threats like terrorism. Congressman Hall wanted me to legislatively reinstate a long-term planning process that had been absent in the Air Force since the mid-1990's. I actually took it a step further. I looked at the entire planning and budgeting system of the Air Force.

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I was operating under the premise that if the Air Force is not investing in R&D, then there may be more than the absence of a specific long-term planning process creating barriers to R&D advocacy. There may be barriers throughout their entire planning and budgeting system. At the same time, I looked at the changes they had recently made to see how these might help the situation. Have they gone far enough? Is there something more that should happen? Should we wait a year or two and see if the changes are effective? Should we make them prove that the changes are effective to solve the problem? I was trying to think both about processes and results, the past and the future.

My project management training and experience was important at many points during the creation of successful legislation. Researching an issue is very similar to the project requirements phase. Once you understand the problem that needs to be solved, you then conceive a "conceptual design" of legislation to address the issue. You may even create a multi-year legislative plan to attack the issue. Further, you need to decide what monies may be required by the affected federal agency to implement the legislation. This must be budgeted for by Congress.

All decisions and legislation in Congress pass through a committee system. The committee which has jurisdiction over the issue decides what legislation passes or "dies in committee." Part of the legislative plan is to decide what information, money requests, or legislative language must be provided to the committee in time to influence their decision points. There is a sense of timing and deadlines, the same as with any critical project.

The first point where my background came into play was in understanding the Air Force science and technology investment issue. At NASA I learned how to

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perform complex budgets and plans. Having done so much strategic and project planning, I was able to pick up Air Force documents and easily understand what was going on. I spoke the same "language" as the Air Force budgeters and planners. Most legislative staff don't have this kind of background. It would have been difficult for them to understand where key decision points were, who was making them, who was absent from the decisions, and what planning and budgeting techniques were being applied. And furthermore, it would have been extremely difficult for them to take this information and understand how it translated into decisions about the science and technology program top-line budget and investment portfolio.

At NASA project managers are continually taught the key to the success of any project is the relationships that form within the team and with customers and shareholders. In this instance, the team consists of the Congressional offices or committees that work with our office. They have a vested interest in the successful outcome of the legislation. The customer and shareholders are the U.S. public and the special interest groups that stand to benefit. To an extent, the Air Force is also a shareholder. Relationships with all of these parties are critical to the passage of the legislation. I spent a significant amount of time building these relationships. This is one of the things you have to do to establish your credibility, and on Capitol Hill credibility is everything for success. It is a very "personal" environment, much more so than the world of science and engineering.

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As a project manager you have to build a team and work with them to achieve a common goal. Building relationships is an important part of the work a project manager does at NASA, and certainly it's an important way you establish your credibility. But what's different at NASA is that we're all scientists and engineers, so there really are not significant communication barriers.

On the Hill I'm continually working to build social relationships as a way to mitigate the communication barriers surrounding scientific and technical issues. That's why I spend a significant amount of time going to receptions, two or three a week sometimes. I spend even more time just talking with other staff. The staff I talk with may come from completely different backgrounds. I can't discuss legislation with them as if they automatically understand the issues without first making sure they understand the basic terms. Once I understand their backgrounds, I can then explain the issues in their terms. Further, this "networking" is used to understand what issues are of importance to these staff or their bosses, i.e. the Congressmen. This also provides me with a framework for finding com-

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mon ground between our legislation and what issues they hope to solve. In return their support helps to pass the legislation.

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To create legislation that intersects the best interests of both the U.S. public and the Air Force, I had to build relationships with the Air Force so that they would begin to trust me. That trust was important to obtaining an understanding of their agency and their processes. I did this by meeting with people, proving I was knowledgeable, demonstrating my credentials, and empathizing with them by letting them understand that I was from a Federal agency and understood the agony that some agencies go through based on the legislation that comes out of Congress. I let them know that regardless of whether I wanted this legislation or the Air Force wanted it, Congressman Hall was demanding it. Hence if it were a cooperative effort, then the final product would be something everyone could live with.

Building relationships went beyond just what I was doing with the Air Force or Capitol Hill staff. One of the things you do is look outside the Hill for people with the common interests of your congressman. Certain special interest groups very much want to see increases in science and technology spending at the Department of Defense. When you have the opportunity, you work hand-in-hand with these parties. One such group was the Coalition for National Security Research. This is a consortium that includes many universities. Universities have a lot of power on the Hill. Because they are high profile constituents in their districts, they can go to their congressional representative and say, "This is important."

Projects continually rely on reviews to assure that the end product meets its requirements, i.e. solves the problems it was supposed to. Before we submitted the legislation, it was thoroughly reviewed. I had three or four different Air Force organizations review it. I had different staff members in offices on the Hill whom I thought had some expertise review it. I gave copies to all the Armed Services Committee staff and took their input. I also sent it to some MIT professors who had been on an Air Force science and technology advisory board and found some of the same conclusions as I had. This may sound similar to all the reviews you have to go through on a project, but the difference in this case was that I had to initiate all of them. Formal reviews are not built into the congressional process. As a project manager I certainly understood the value of getting good reviewers to look at your product, especially from a variety of experts.

Question

If nurturing interpersonal relationships is much of what you do as a project manager, how did you learn this skill?

In some ways it's a very different environment here on the Hill than it is at NASA. Still, it is interesting to me to what extent preparing a new piece of legis-

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lation is also a project. Legislation has to be backed by a plan, it must have the support of a team, it has to meet the requirements of the customers and shareholders, it has to be thoroughly reviewed, and it has to be completed on schedule. When I set foot on Capitol Hill, I had no idea how much of what I had learned at NASA was going to help me succeed with my legislative job!

Lessons:

- All (white collar) work is project work.
- Project work is moving to center stage in our organizations. You cannot afford to be a 10 in operations and a 4 in project work.