



Protecting the Future

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If you've heard me speak recently or read about any of my recent congressional testimony, you may be aware that I'm fairly vocal about my concerns regarding our ability to sustain the unchallenged technological superiority our military has enjoyed for several decades. This isn't a new concern but, given the budget cuts we face and the difficult trade-offs among competing needs for force structure, readiness and investment, I decided it was time to be much more public and vocal about our current and future risks. The Secretary and the acting Deputy Secretary have been extremely supportive and are expressing the same concerns.

One of my priorities as USD(AT&L) is "Protect the Future." In October 2011, I added this item to the list of priorities I had articulated as Principal Deputy Under Secretary in 2010. "Protect the Future" spans several areas. It includes keeping alive the capabilities we developed to support the two prolonged counter-insurgency campaigns we have waged in Iraq and Afghanistan—we may need them again. On this list are items like contingency contracting, counters to improvised explosive devices, and rapid acquisition in general. "Protecting the future" includes the protection of our science and technology accounts. It would also include protecting the gains we have made in staffing and training the acquisition workforce using the Defense Acquisition Workforce Fund. Most of all, however, I am concerned about protecting the adequacy of our research and development (R&D) investments in capabilities and systems that will allow us to dominate on future battlefields and keep engineering design teams who develop advanced defense systems.

The Department is dealing with an unprecedented level of uncertainty about our future budgets. It is normal to have a small gap between the requested budget and the appropriated one, but not on the order with which we have been forced to cope. The large gap between the budgets we have been requesting and what we could receive under sequestration is a planning nightmare. The President's budget this year acknowledges this disconnect. We are asking for a fiscal year 2015 (FY15) number that complies with the Bipartisan Budget Act, but the President is appropriately requesting additional funds for defense in the Opportunity, Growth and Security Initiative. In FY16 and beyond, our request narrows the gap between sequestration and our request by about half, but this still leaves us with a significant band of uncertainty. Whatever the ultimate result, we live in a world of reduced resources and a world in which we may plan based on an assumption of substantially more resources than may actually be provided.

In this environment there is a tendency to hang on to what we have—namely, force structure and programs that are already in production. There is also a strong desire to keep the readiness of our forces at acceptable levels. Having lived through the readiness crisis of the 1970s as an Army officer stationed in West Germany, I can appreciate this desire. Nevertheless I will continue to argue that we need to properly balance readiness, force structure and modernization, while preserving our R&D activities. Here are three reasons why I believe preservation of research and development is necessary.

First, technological superiority is not assured. Ever since returning to government service in spring of 2010, I begin my day with an intelligence update. Because of my role, I tend to focus more than most senior leaders on technical intelligence. While a conflict with any specific power may be unlikely, it was immediately apparent to me four years ago (and nothing has changed this view except to reinforce it) that China in particular, as well as Russia and other states, are developing cutting-edge military capabilities that are designed to defeat current and planned U.S. capabilities. We have had the luxury of living for a long time off technological capital largely developed during the Cold War. We demonstrated dominant operational effectiveness in the first Gulf War, which was won in a very short time with many fewer casualties than anyone expected. Our advances in stealth, precision weapons, networking and wide-area surveillance combined to give us an unprecedented level of military capability. We used these same fielded technologies in Serbia, in Afghanistan and in the invasion of Iraq. Potential adversaries saw what we had demonstrated so clearly over 20 years ago, and they took action. In the meantime, I'm afraid we have been complacent and tended to take our technological advantage for granted.



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We also have been focused for more than a decade on intense counter-insurgency campaigns.

What areas concern me the most? The areas we refer to loosely as A2AD for Anti-Access and Area Denial. Our ability to project power around the globe depends on an array of assets and actions that include our space-based global-positioning systems, our communications and sensors, our long-range strike, our ability to move carrier-based strike forward, our networks, forward basing (including airfields and command, control and communication as well as logistics nodes), and our ability to be dominant in the air. These are all areas in which we are being challenged with both current capabilities and capabilities still in development. This bears repeating. While a conflict with any specific power may be unlikely, I do not want to live in a world in which the United States no longer is the dominant military power or in which potential adversaries may possess equipment (from any source) that would remove the advantage our warfighters have depended on for so long.


My second point is that R&D is not a variable cost. This is not an obvious point to many people, and in the past there has been a tendency to reduce R&D more or less proportionately to other budget reductions. This can be dangerous, if done in excess, because R&D costs are not related to the size of our force or the size of the inventory we intend to support. The cost of developing a new weapons system is the same no matter how many of that system we intend to produce. If we don't do

the R&D for a new system, then the number of systems of that type we will have is zero. It is not variable.

Third and finally, time is not a recoverable asset. It takes a certain amount of time to develop a new system, test it and put it into production. Time lost is, for the most part, not recoverable. By taking higher risks and accepting inefficiencies and higher costs, we can reduce the “time to market” of a new weapon system. This approach was used successfully to field Mine Resistant Ambush Protected Vehicles (MRAPs) for the conflicts in Iraq and Afghanistan; however, MRAPs are not complex cutting-edge weapon systems. Nominally, it takes about 10 to 15 years from conception until we have a modern complex system in the field in operationally meaningful numbers. Even during the 1940s we had to fight World War II largely with systems that were in development years before the war began. We can shorten, but not eliminate, the time required to field new cutting-edge weapons systems.

Fortunately the Department’s leadership understands and supports these views. As Secretary Hagel made clear, we must strike a balance between our ability to meet current global requirements, maintain a trained and sustained force that can meet near-term needs and at the same time “protect the future” by continuing our highest priority R&D programs and the

science and technology programs that feed them. The Secretary, senior leadership in the Office of the Secretary of Defense and in the Joint Staff and the Services all tried to strike the right balance as we built the Future Years Defense Program.

That brings me to our role in defense acquisition, technology and logistics. The efficiencies we continue working on under the Better Buying Power label are some of the tools we have to help sustain technological superiority. Every dollar of cost savings from a successful “should cost” initiative, every business deal we negotiate that provides better value to the government and every successful incentive structure we implement with industry will allow us to invest more in future technological superiority. We also have to become better at working with the operational requirements communities. By focusing on performance features that really matter militarily, this relationship helps ensure we provide the users with products that give them advantages they need at an affordable cost. Our technology base work also has to be strategically focused on areas that give us a significant operational advantage. Our responsibility in these still uncertain times, as always, is to deliver as much capability to the warfighter as we can with the resources entrusted to us. We will not sustain our technological superiority or “protect the future” unless we succeed. 



Where Can You Get the Latest on the **Better Buying Power** Initiatives?

- **BBP Gateway (<https://dap.dau.mil/bbp>)** is your source for the latest information, guidance, and directives on better buying power in defense acquisition
- **BBP Public Site (<https://acc.dau.mil/bbp>)** is your forum to share BBP knowledge and experience