

Testimony
Before the House Committee on Armed Services

Witness Statement of
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Chairman Thornberry, Ranking Member Smith and distinguished members of the committee, I appreciate the opportunity to testify today. I applaud the steps you are taking to improve defense acquisition. I look forward to sharing with you some ideas for improvement, which I hope you will consider, and also some actions I am taking within existing authorities and constraints with the same goal: get more for the taxpayer and the warfighter from the resources the Congress provides to the Department. I would like begin by discussing the reason it is so crucial for our acquisition system to be more productive; that is the clear risk we face today of losing our military technological superiority over potential adversaries. Controlling cost and increasing efficiency and productivity are always important, and the Department remains focused on improvements in these areas. My first responsibility, however, is to ensure the United States has and will continue to have dominant military capabilities relative to any potential adversary. At this time, as I have testified before to this Committee, I am deeply concerned about the adverse trends I see in our military technological superiority.

THE RISK OF LOSING MILITARY TECHNOLOGICAL SUPERIORITY

Each morning, I start my day reading the latest intelligence, including technical intelligence on foreign weapon systems. I've been doing this for almost five years now, since March of 2010. It took me only a few weeks from the time I came back into government after a 15 year absence to realize that we have a serious problem. Some countries, China particularly, but also Russia and others, are clearly developing sophisticated weapons designed to defeat our power-projection forces. Even if war with the U.S. is unlikely or unintended, it is quite obvious to me that the foreign investments I see in military modernization have the objective of enabling the countries concerned to deter and defeat a regional intervention by the U.S. military.

Over the past few decades, the U.S. and our allies have enjoyed a military capability advantage over any potential adversary. The military capabilities of precision weapons, stealth, wide area surveillance, and networked forces emerged from what Deputy Secretary Work describes as a third "offset strategy" that had its origins in the 1970s. This mix of capabilities was designed to deal with the overwhelming number of Warsaw Pact mechanized forces. The First Gulf War put this suite of technologies and the associated operational concepts on display for the world to observe and study. The First Gulf War also marked the beginning of a period of American military dominance that has lasted about a quarter of a century and served us well in several conflicts. We used the same capabilities, with some notable enhancements, in Serbia, Afghanistan, Libya and Iraq. It has been a good run, but the game isn't one sided, and all

military advantages based on technology are temporary. Sequestration level budgets would of course significantly accelerate the erosion of our military advantage.

When I left the Pentagon in 1994, the intelligence estimates suggested that, while China might be a concern in the future because of its accelerating economic growth, it would take 15 to 20 years for China to become a peer competitor. It is now 20 years later and the intelligence estimates were accurate. China has developed and fielded advanced weapons designed to defeat U.S. power projection forces. Many more are in development. These systems include a range of capabilities but foremost among them are accurate and sophisticated cruise and ballistic missiles designed to attack high value assets; particularly the aircraft carriers and airfields that we depend upon for power projection. These missiles, fielded in large numbers and coupled with advanced electronic warfare (EW) systems, modern air-to-air missiles, extensive counter-space capabilities, improved undersea warfare capabilities, fifth generation fighters, and offensive cyber weapons pose a serious and growing threat.

China's modernization program is the most ambitious, but Russia and others such as Iran are also fielding precision missiles and other capabilities that threaten our power projection capabilities. Taken together, the foreign modernization programs that I refer to are clearly designed to counter American power projection forces and to ensure the U.S. does not interfere in areas similar to what Russia calls "the near abroad" and China refers to as inside "the first island chain." Even if our relationships with these states remain peaceful and military confrontation with them never occurs, the capabilities I am concerned about will inevitably proliferate to other states where the likelihood of conflict may be greater.

The combined impact of reduced budgets, even without sequestration, on-going combat operations, and our global commitments significantly impact US investment in new technology and weapon systems. The rise of foreign capability, coupled with the overall decline in U.S. research and development investments, is jeopardizing our technological superiority. The Defense Department has to balance among many competing requirements and the President's Budget will, as it always has, reflect the best balance of force structure, readiness, and modernization available. My responsibility is to use the available resources as efficiently and effectively as possible to delivery capability to our warfighters. The remainder of this statement will address the steps I am taking to accomplish this and some recommendations that the Administration like to work with the Committee to see enacted.

IMPROVING DEFENSE ACQUISITION

We all agree that the Department can be smarter in what we procure and how we procure it. We all want to reduce schedule slippages, curb cost growth and get better performance. After over 40 years of various cycles of acquisition reform, I've concluded that there is no single reform or even package of reforms that will dramatically change our outcomes. A recent study led by Dr. David McNichol at IDA found that the single biggest statistical correlator to production cost increases in weapons systems was the budget climate (tight or lose money) at the time the program was first baselined.¹ Program cost overruns are much more pronounced if the program was initiated during periods of "tight" money, such as we are currently experiencing. Everything else we've ever done as "acquisition reform" seems to have had almost no discernable statistical impact on production cost growth. For the last few years, starting when I was then Under Secretary Carter's Principal Deputy, we've taken the approach of "continuous improvement." Whatever we chose to call it, the Department is very willing to work with the Congress and this Committee on anything that will reduce cost, speed delivery, or enhance the performance of the equipment and services we acquire for our warfighters.

The Department's continuous improvement approach has been formulated in a series of initiatives we have called "Better Buying Power." There are three versions of Better Buying Power, with each one building on and learning from the previous versions. The evolution from BBP 1.0 to 2.0 to 3.0 was based on the premise that emphasis would shift as initiatives were put in place, experience was accumulated, data was collected and analyzed, and conditions changed. Each iteration of BBP is characterized by strong continuity with previous iterations. In fact, each includes "core" features that would be in any BBP version that I would implement; these include an emphasis on competition, incentives linking profit to performance, cost consciousness demonstrated by active cost controls, and building professionalism in the acquisition workforce. BBP 3.0, which was announced in fall 2014 and is currently being finalized, maintains that approach with a great deal of continuity from BBP 2.0 but also a shift in emphasis toward achieving dominant capabilities through innovation and technical excellence.

One of the dominant characteristics of defense acquisition is its scope and complexity. There are no simple solutions to all the myriad problems acquisition professionals have to solve. There is no short "rule set" that tells us all we need to know – it is all about hard work,

¹ McNicol, David L., and Linda Wu, *Evidence on the Effect of DoD Acquisition Policy and Process On Cost Growth of Major Defense Acquisition Programs*, Institute for Defense Analyses, Paper P-5126, September 2014.
<http://www.dtic.mil/dtic/tr/fulltext/u2/a609472.pdf>

professionalism, and continuous improvement based on data and analysis of past experience. I have submitted the BBP 3.0 “white paper,” which describes BBP 3.0 in more detail for the record.² I’m also providing the second annual report on the *Performance of the Defense Acquisition System*, which was published last year.³ This report provides a compendium of data on trends in DOD acquisition performance. The following is a brief summary of the intent behind the draft BBP 3.0 initiatives, which I expect to finalize with implementing instructions in February. There are seven major areas of emphasis with most having a number of individual initiatives associated with the area.

Achieve Affordable Programs. All versions of BBP have addressed the problem the Department has of starting unaffordable programs that ultimately have to be canceled or curtailed. The Department continues to set and enforce affordability caps on all major programs. We use this tool, affordability caps, as a forcing function for capital investment analysis to determine how much capability can reasonably be afforded in future budgets – *before* requirements are established and the program is initiated. Affordability analysis is used to establish production and sustainment affordability caps. Affordability caps are of little value unless they are enforced, and we will continue to track our performance against the caps we have established to ensure compliance.

Achieve Dominant Capabilities While Controlling Life Cycle Costs. This is the next BBP major category and is in part a continuation of a core tenant within BBP: our managers should be actively taking steps to control cost at all times. The new or modified initiatives in BBP 3.0 address: (1) building stronger partnerships between acquisition, requirements and intelligence communities; (2) anticipating and planning for responsive and emerging threats; and (3) institutionalizing a long range research and development program plan (LRRDPP) for the Department. The LRRDPP, based on a similar effort in the 1970s, is one part of the Department’s effort led by Deputy Secretary Work to improve innovation across the DOD and to develop a new “offset strategy.” The LRRDPP, which is being led by the DASD (Systems Engineering), will help the Department identify and prioritize the most promising suite of innovative technologies, associated systems and operational concepts that will lead to dominant military capabilities in key war fighting areas.

² Frank Kendall, *Better Buying Power 3.0: White Paper*, Office of the Under Secretary of Defense, Acquisition, Technology and Logistics, September 19, 2014.

http://www.acq.osd.mil/fo/docs/Better_Buying_Power_30-091914.pdf

³ Office of the Under Secretary of Defense, Acquisition, Technology and Logistics, June 13, 2014.

<http://www.acq.osd.mil/fo/docs/Performance-of-Defense-Acquisition-System-2014.pdf>

Incentivize Productivity in Industry and Government. We will continue to align profitability more tightly with Department goals. The data shows that the Department does a reasonably good job of aligning profit with performance, but there is still room for improvement. The data shows clearly that the way we structure our business deals does affect how industry performs. Our goal is a defense industrial base that is lean, competitive, innovative and productive. Profit is an effective tool to achieve these ends, when we use it appropriately. Striking the right balance is key; profit is not optional for any business. We want to provide incentives that are effective and fair and we are happy to see firms that perform well for the Department do well financially. New under BBP 3.0 are initiatives focused on: (1) removing barriers to commercial technology utilization, (2) improving the return on investment in DOD laboratories, and (3) increasing the productivity of industry Independent Research and Development (IR&D) and Contracted Research and Development (CR&D). Technological superiority depends in part on our ability get as much as we can from each of these multi-billion dollar investments.

Incentivize Innovation in Industry and Government. This set of initiatives emphasizes how we stimulate creativity and the willingness to reach beyond minimum requirements. Our intent is to support advancing the state of the art, preserve our critical design teams, and reward out of the box thinking and risk taking. For example, increasing the use of effective prototyping and experimentation not only allows us to advance technology and explore innovative operational concepts, it also preserves a vital part of the industrial base, our integrated product design teams. The pending budget submission will include an “Aerospace Innovation Initiative,” a new DARPA led program in partnership with the Navy and Air Force, intended to develop the technologies and address the risks associated with the air dominance platforms that will follow the F-35, as well as other advanced aeronautical challenges. Other initiatives in this area include providing draft technical requirements to industry as early as possible and providing clear “best value” definitions (in monetary terms) so industry can propose smartly and the government can choose wisely. Industry and government must work effectively together to advance the state of the art; these initiatives are intended to further that goal.

Eliminate Unproductive Processes and Bureaucracy; this is a constant struggle and it never goes away. We have made some progress here, but there is much more to be done. A lot of the bureaucracy imposed comes from people who are not in the chain of command but who are stakeholders of some type who want to protect what we call in the Pentagon their “equities” or institutional interests. While a valid and reasonable motivation, the diversity and density of

stakeholders imposes huge burden on the chain of command responsible for program execution and delivering capability. Later in this statement I will address a legislative initiative we have been working with the Congress and this Committee, which we hope will address some of the overhead imposed on our Program Managers through statutory requirements that have built up over the years. Assistant Secretary for Acquisition McFarland has also been working closely with industry on some of the requirements we place on our contractors, and we hope to make some positive changes in this area also.

Promoting Effective Competition; competition is another core component of any BBP version. Competition is the most effective tool we have to control cost. In the absence of direct competition, anything that creates a “competitive environment” has value to the Department. When direct competition at the product level is not economically viable, then alternative means of introducing competitive pressure or direct competition at lower levels should be pursued.

A new initiative in BBP 3.0, improving technology search and outreach in global markets, recognizes that competitive sources of both technology and products are increasingly located outside the U.S. We have many global allies, friends, and trading partners who share our values and can assist us in acquiring needed defense products. For example, the Defense Technology and Trade Initiative between the US and India furthers our strategic goals, but it also opens up possibilities for new and competitive sources of products to the Department. With our resource constraints we cannot afford to develop unique US systems for every need. Where adequate products are available from our international partners we should welcome and encourage broad competition.

Improving Tradecraft in the Acquisition of Services. We spend the same amount of money on services as we do products. Recognizing this, we have done much during the last few years to improve the acquisition of contracted services. Nevertheless this will remain a core part of BBP indefinitely. It represents the area in which I believe the greatest efficiency improvements are still possible. Initiatives like increasing small business participation, including more effective use of market research; and improving requirements definition for contracted services will continue. New in this version of BBP is a focus on improving the effectiveness and productivity of contracted engineering, technical and support services.

Improving the Professionalism of the Total Acquisition Workforce. This last category was added in BBP 2.0. I am proud of our government workforce and what it has accomplished for our country, our taxpayers, and our warfighters; we have a very professional workforce. Our

acquisition professionals must be able to think critically on many levels, integrate inputs from many perspectives, balance competing needs, make sound business and technical decisions, and satisfy many stakeholders and customers. Due in no small part to these professionals' efforts we have dominated in every conflict we have entered. I am extremely proud of the acquisition workforce's resilience under constant criticism, pay freezes, furloughs, concerns about reductions in staff size, the possibility of being affected by a Base Realignment and Closure (BRAC) round, and an uncertain budget climate. The workforce constantly strives for higher performance. But the mark of a true professional is not complacency with current levels of performance; it is the recognition that there is always more to learn and improvement is always possible. BBP 3.0 specifically focuses on strengthening our technical expertise and it emphasizes the particular importance of qualified technical leadership for development programs.

We cannot be intelligent customers who insist on high levels of performance and know how to get the most out of industry, if we don't have the right technical capabilities inside the government. Effective risk management – necessary if we are to overcome the risks that must be taken to acquire new dominant capabilities – is a fundamental skill we need to improve. As a result we are looking for ways to strengthen organic engineering capabilities. Part of the equation may be more exchanges with industry for our technical people, more careful management of career fields and certainly emphasizing the importance of technical people to our success. We are looking for more ideas in this area from all stakeholders including the Congress.

In summary, BBP 3.0 does not end our focus on controlling costs, critical thinking and sound professional management. It shifts our emphasis slightly toward the products we produce for our customers: the warfighters who depend on us to give them dominant capabilities on the battlefields of the future. BBP 3.0 continues strengthening our culture of cost consciousness, professionalism and technical excellence.

INFORMING POLICIES THROUGH DATA AND ANALYSIS

Data-driven performance analysis is now being used to ensure we understand how well we perform and whether policy changes actually produce the results we seek. One major way we achieve this goal is through the annual report I instituted two years ago, called the *Performance of the Defense Acquisition System*.⁴ In addition to providing objective, transparent

⁴ Office of the Under Secretary of Defense, Acquisition, Technology and Logistics, June 13, 2014. <http://www.acq.osd.mil/fo/docs/Performance-of-Defense-Acquisition-System-2014.pdf>

views of our performance, we are producing actionable insights that inform policy making. At times, these insights are not what conventional wisdom may have led us to expect prior to looking into the actual results.

For example, in our 2013 and 2014 reports we found the assertion that fixed-price contracts produce better cost and schedule performance at better prices to the government was not accurate. Fixed-price contracts do not ensure the lowest final price for all situations. Instead, the most important imperative we found is that the government must match the contract type and incentive structure to the level of risk so that we effectively motivate contractors to perform at their best while minimizing prices. For example, if risks are high when acquiring a weapon system, firm-fixed-price contracts will result in higher prices because contractors bid higher to insure against these risks; if the risks do not materialize, we are still stuck paying high fixed prices. Conversely, cost-plus-incentive-fee and fixed-price-incentive contracts provide effective incentives to control cost risks, such as in development, while ensuring we share in any savings.

This result indicates that the existing statute requiring a written determination by the Milestone Decision Authority before cost-type contracts can be employed on development programs⁵ places the emphasis in the wrong area. Instead of emphasizing the use of fixed-price vehicles, we should be emphasizing the use of formula-type incentive contracting on development programs. The risk of taking a substantial loss or no profit on a strongly incentivized cost-plus-incentive-fee or fixed-price-incentive contract is a motivation for better performance. The risk of going bankrupt on a risky firm-fixed-price contract (especially in development) is a deterrent to doing business with the Defense Department. We need to get this right, and contracts with formulaic incentives strike the right balance on most development programs.

This result also supports the current guidance to increase the use of fixed-price-incentive contracting on production contracts. Such contracts control prices about as well as firm-fixed-price contracts but with lower median margins. They also provide timely insights into actual costs and let the government share in the cost savings we are incentivizing.

As this short description illustrates, this is complicated. There is no single, best solution for every situation, and those situations differ even more widely between acquisitions of different types of goods and services. We need the flexibility to assess each situation and apply the right tools to motivate the best performance at the lowest final price.

⁵ FY2007 NDAA, Section 818

WHERE CONGRESS CAN HELP

Repeal Sequestration. Sequestration may very well return in Fiscal Year 2016 – and, even if it does not, the continuing threat of sequestration makes sound planning all but impossible. The debate of how much we need to spend for our military in order to have peace and stability in the world is a debate worth having. Controlling the deficit is a worthwhile goal. The sequestration mechanism is not an appropriate tool to achieve either of these ends and just the threat of sequestration is doing great harm to the Department of Defense.

Provide requested funding and needed cost saving steps. We are experiencing a period of tight defense budgets made worse by the Congress’ reluctance to fund proposed cost saving measures. The record on how tight budget climates affect acquisition results is sobering.⁶ Historically, out of 151 Major Defense Acquisition Programs (MDAPs) since 1970, 40 showed quantity-adjusted Program Acquisition Unit Cost (PAUC) growth of at least 50 percent. Shockingly, fully 36 of those 40 programs (90%) were established (i.e., passed milestone B or the equivalent) during periods of tight budgets for the Department. I suspect that during declining budget periods there are incentives to budget and then baseline programs with higher cost risk rather than remove needed capabilities from the budgeted program.

We are in real danger of repeating this history today. Acquisition reform during tight budgets tends to take the form of substituting wishful thinking and hope for sound estimates, effective risk mitigation, and full funding. With the Congress’ and the leadership of the Department’s support, I intend to break this cycle.

The data shows this budget-climate effect seems to exist regardless of the actions taken in the past 45 years to implement one version or the other of “acquisition reform.” These results reinforce the importance of our efforts to institutionalize long-term affordability planning and constraints, to use independent cost estimates to inform baselines, and to adjust requirements based on realistic affordability constraints and cost-benefit relationships.

Supporting Congress’ Acquisition Reform Legislative Initiative. My staff has been working in close coordination with Chairman Thornberry and the staff on ways to reduce the

⁶McNicol, David L., and Linda Wu, *Evidence on the Effect of DoD Acquisition Policy and Process On Cost Growth of Major Defense Acquisition Programs*, Institute for Defense Analyses, Paper P-5126, September 2014.
<http://www.dtic.mil/dtic/tr/fulltext/u2/a609472.pdf>

overhead and bureaucracy that our program managers and their teams face. We have also worked with the Senate Armed Services Committee (SASC) staff and my recent discussions with Chairman McCain and new professional staff members have been very encouraging. Our mutual goal is to enable program managers to place greater emphasis on controlling cost, mitigating risk, and meeting schedule, and less time on bureaucracy and unnecessary paperwork.

Last year, motivated by the long dense tables of compliance requirements in the updated DODI 5000.02, and with encouragement from Congressional leadership, I commissioned a "Legislative Initiative" to comprehensively review statutory requirements and develop a set of legislative proposals to simplify the existing confusing, complex, interwoven, and sometimes contradictory body of law that has built up over decades and which our Program Managers must comply. We assembled a team with representation across the Department, to include the Army, Navy, and Air Force. Using an evidence-based approach, the team conducted detailed case studies on an array of major programs that recently achieved major milestones in the acquisition process, focusing on the compliance burdens and processes required by statute.

Our analysis revealed the accumulation of statutory requirements over time often establishing specific processes or reports to address risks evident in past programs. While succeeding in calling attention to specific issues in the development and fielding of our programs, these requirements often duplicated other aspects of the process or generated redundant documentation. These proposals we would like the Congress to consider are designed to maintain emphasis on the types of risks highlighted in prior legislation, while providing greater flexibility to tailor compliance and eliminate unnecessary red tape. Because these statutory requirements are additive over time, we also attempted to consolidate related requirements within foundational statutory provisions.

The proposals were developed over a period of several months by a team originally led by Andrew Hunter, formerly a staff member on this Committee, and now led by Gabe Camarillo (Principal Deputy Assistant Secretary of the Army for Acquisition, Logistics & Technology), with input from subject matter experts in the Services and other Office of the Secretary of Defense organizations. Many of the major defense programs reviewed developed in excess of 40 documents (statutory and regulatory) to meet information requirements mandatory at milestone reviews. A significant number of these documents provided the Program Manger minimal support in the development of their acquisition strategy or in program execution. One program expended 103,028 man hours to develop and staff 59 documents at a total estimated cost of \$13.1M alone. Another Service estimate concluded the cost to produce milestone documentation

is between \$14M and \$19M for each milestone of a major program. A different office reported that a single report on manpower costs associated with a howitzer program required 365 total days to staff and approve – a process completed well after the information had been already utilized in the cost estimation process as intended by statute. These case studies, along with discussions with a vast number of Department employees, industry, and engagement with Congressional staff resulted in proposals that recommend statutory changes to the acquisition process to help streamline our system and to allow our managers to focus on substance instead of compliance.

The proposals recommend substantial changes to some processes, such as revising the milestone certification requirements for programs in technology maturation and development phases, as well as a host of minor changes to others calling for reporting or requirements or notification to Congress of specific decisions. While changes are recommended, the proposals maintain original emphasis on the underlying problems and goals identified in the original statutes – even as redundant processes or reports are eliminated. If this package of proposals is enacted, I believe documentation requirements for major acquisition programs will be reduced by up to 50% while creating a stronger emphasis on real risk reduction and sound program planning.

The layers of well-intended statutory requirements and piles of regulation make the task of managing an acquisition program harder than it needs to be and does not empower our workforce for success. One thing I hope we can all agree on is the need to simplify and rationalize the bureaucratic burdens we place on our acquisition professionals – which is why I look forward to our continued close and cooperative work in this area with both the House and Senate Armed Services Committees.

CONCLUSION

Given the Department's five-year plan through 2020, I can tell you right now what capabilities we will have in 2025. If a weapon system is not in our five-year plan as a development program today, the Department will not have that capability in meaningful quantities within the next decade. It is possible to move a complex weapon system through development in those additional five years from 2021 to 2025, but we are unlikely to be able to also produce and field a useful inventory within that same period of time. Technological superiority is not a tomorrow problem; it is here today. I'm anxious to work with the Committee on acquisition reform or improvement, and I am confident that the initiatives we are pursuing

under Better Buying Power and recommending in the Legislative Initiative will all improve the performance of the acquisition system. In my view nothing we do can overcome the harm that would be done through sequestration and the resulting lack of adequate research and development funding.