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THE SENATE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON READINESS AND
MANAGEMENT SUPPORT

STATEMENT

OF

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BEFORE THE

SUBCOMMITTEE ON READINESS AND MANAGEMENT SUPPORT

OF THE

SENATE ARMED SERVICES COMMITTEE

ON

ACQUISITION REFORM INITIATIVES

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Madam Chairwoman, Senator Kaine, and distinguished members of the subcommittee, thank you for the opportunity to appear before you today to address acquisition reform initiatives. The acquisition process, as difficult as it is, produces the most capable military weapon systems in the world, by far. This achievement is only made possible by the combined efforts of the Congress, the nation's industrial base, the Department of Defense's (DoD's) acquisition workforce, and, of course, our men and women in uniform who test, train, deploy, and ultimately take these weapons to war. The great challenge before us all is to produce the needed capability at a more affordable cost, and at a pace that preserves the technological edge that our military has possessed for nearly three-quarters of a century. The Department of the Navy (DoN) is committed to meeting that challenge and these remarks are provided in that context.

To consider what improvements could be made in acquisition today, it is important to understand the environment in which it operates. Within the DoN, we are responsible to the warfighter and taxpayer to manage and execute upwards of $60 billion per year for Navy and Marine Corps development and procurement. Clearly, our first priority is to meet the needs of our Sailors and Marines deployed around the world today, fighting today's war. At the same time, we are also responsible to bring forward significant advances in capacity and capability that the Navy and Marine Corps will rely upon to maintain naval superiority well into the 21st century. This must be accomplished in an environment characterized by constrained budgets, increasing system complexity, limited competition, a shrinking industrial base operating within a tough economy, and increasingly burdensome requirements associated with the administration, oversight, and reporting of our major weapon systems programs. It is also important to understand the essential nature of weapon systems procurement - neither the DoD nor the defense industry exercises a classic role of buyer or seller in the free-enterprise system. As a result, it can be difficult to attract new entrants into a unique, high-entry-cost, and often less understood market in the U.S. And finally, this large government bureaucracy that envelops Defense acquisition discourages risk and thwarts rapid or even timely delivery when, in fact, the very nature of weapon systems development is risky, and the very pace of technology and of the threat, demand a faster, appropriate response. Given this environment, which is not prone to agility, primary emphasis must be placed on the need for experienced, knowledgeable acquisition professionals who know how to work in the unique defense marketplace, who understand the technical dimensions of

extraordinarily complex systems, and who can navigate the bureaucracy and produce excellent outcomes in spite of it all.

With the above in mind, history and experience have demonstrated that programs succeed when they adhere to basic principles: (a) get the requirements right; (b) perform to a stable plan; (c) make every dollar count; (d) rely on an experienced acquisition workforce; and (e) foster a healthy industrial base.

Getting the Requirements Right

Arguably, requirements definition is the most critical phase in determining the successful outcome of a major weapon systems program. Requirements that are underpinned by a thorough assessment of technical feasibility and a realistic cost estimate are inherently at lower risk of cost or schedule overrun, or performance shortfalls, during program execution. Conversely, the preponderance of 'failed programs' can trace their undoing to poor understanding of the technical requirements (including what are often referred to as 'derived requirements'), cost, and risk intrinsic to such programs' operational requirements. Our mandate – to properly define and seamlessly transition from requirements to design, to build, test, field, and sustain and to do so within agreed budgets and schedules based on realistic estimates – necessitates unity of purpose and unity of action between the Requirements and Acquisition organizations each step along the way. And it all begins with and hinges upon getting the requirements right.

Expert knowledge is required to understand the link between operational requirements and technical requirements; and the development, design, and production challenges that must be overcome to achieve these technical requirements; and the time and resources that will be required. This expert knowledge should be the inherently governmental responsibility assigned to the Acquisition Workforce (AWF). Accordingly, it is critical that the acquisition arm, which will be accountable for delivering to the technical requirements defined for a weapon system, is embedded in the requirements definition process to provide the Department its best assessment of technical feasibility, cost, and risk in the course of defining those requirements.

Understanding the cost and risk of a program's requirements are not, however, sufficient. As Secretary Gates remarked in his speech at the Eisenhower Presidential Library in 2010, "Without exercising real diligence, if nature takes its course, major weapons programs will devolve into pursuing the limits of what technology will bear without regard to cost or what a real world enemy can do."

Accordingly, because today our Services' requirements exceed our budgets, the DoN has directed that cost - or more appropriately, affordability - must be defined alongside, and managed with the same discipline and rigor, and if need be, drive tradeoffs across such traditional requirements as the speed, power, range, or payload of a weapon system.

The DoN has designed its acquisition process, commonly referred to as the Navy Gate Review process, to ensure there is no gap between the Requirements and Acquisition organizations so that the Navy understands the relationship between requirements, technical feasibility, and cost. The process requires the Navy/Marine Corps operational requirements leadership and acquisition leadership to agree, and repeatedly affirm that agreement throughout the development, acquisition, and sustainment of a system. A misalignment between requirements and acquisition is always costly and sometimes fatal — inducing unnecessary costs associated with redesigning, retesting, schedule delays, and even cancellation. The DoN uses Gate Reviews to eliminate that misalignment early in a program, and to check alignment regularly.

Each 'gate' is co-chaired by the Service Chief or senior military requirements officer and Service Acquisition Executive (SAE). In all, there are six gates. The first three are chaired by the Service Chief (co-chaired by the SAE) and ensure that warfighter requirements are well understood and can be translated into technical requirements that the acquisition community can affordably achieve in the commercial or defense marketplace. The last three gates are chaired by the SAE (co-chaired by the senior military requirements officer) and ensure the technical specification, statement of work, and Request for Proposal have accurately translated the warfighter's requirements into an acquisition approach that is executable, affordable, and agreeable across acquisition and requirements leadership.

Within the Department of the Navy, this acquisition method reinforces the authority and strengthens the ability of the Service Chiefs to set and manage operational requirements, to realistically budget for these requirements, and oversee execution pursuant to their responsibility to man, train and equip the force. Likewise, it reinforces the authority and strengthens the ability of the SAE to manage the technical requirements, to construct the acquisition strategy to achieve these requirements, and oversee execution pursuant to his/her responsibility to the Service Chief to deliver the warfighting capability on-cost, on-schedule and within performance parameters.

Performing to a Stable Plan

Good acquisition outcomes are more probable when a Program Manager can manage to a plan with a foundation of stable requirements, technical baselines, and budgets — which is an expected benefit of the Gate Reviews described above. Alternately, instability causes added cost in rework/time, and a chronic inability to accurately estimate program costs. Perpetual instability produces an historical record of higher-than-necessary cost estimates which, in turn, are used as baselines to estimate future programs which, in turn, are used to inform budget submissions — establishing a repeatable cycle of spiraling, self-fulfilling cost growth.

Good examples of program stability that enable *performing to a stable plan*, include the DDG-51, *Virginia* class, F/A-18E/F, MV-22 Osprey, Mobile Landing Platform, and Next Generation Enterprise Network (NGEN). In each case, the Navy/USMC made strong efforts to establish well-defined and stable requirements that allowed industry to more accurately understand the government's requirements, and then produce cost-effective proposals. Program stability also permits the use of additional cost-saving contracting measures not available where stability is absent, such as multi-year contracting and shorter construction cycles.

A chronic counter to program stability, however, is the bureaucratic environment in which Program Managers operate. In this context, the 'bureaucracy' is viewed by the Program Manager as the accrued effects of individual stakeholders across the broad government who have, or believe they have, a role derived from the myriad of regulations and policies embodied in the FAR, DFAR, FMR, DoD 5000, Services 5000, JCIDs, etc., in decision-making, administering or overseeing some element of that program.

In pushing the boundaries of science and technology to deliver leading edge capability, the risk, complexity and cost of our weapon systems have grown significantly. The response has been decades of well-intended legislation, regulation, and policy designed to reverse cost trends and avoid past mistakes. The result being that Program Managers spend increasing amounts of their time fighting back the destabilizing effects of an increasingly bureaucratic oversight system that is too risk-averse, and less time performing to a stable plan. The unplanned, unpredictable, and often intrusive bureaucracy the Program Manager faces undermines his or her ability and therefore, accountability, to execute a plan too often interrupted or modified by well-meaning individuals outside of the chain-of-command, who may have positional authority, but otherwise are not themselves responsible, accountable or incentivized to ensure a Program Manager is successful. Further attempts to improve Program Manager accountability should be mindful of this reality.

Budget instability destabilizes programs and reduces the likelihood a Program Manager can control program outcomes. The great uncertainty, delay (Continuing Resolutions), and frequent changes to budgets through the annual authorization and appropriations process counter our efforts to effectively execute to a plan. Sequestration, alone, threatens to undo all of the Department's gains in productivity brought about by 'Better Buying Power' initiatives. A timely, predictable defense budget (ultimately, a multiple year budget) would directly increase the productivity of Defense acquisition; provide needed stability to the industrial base; and improve both government and industry's ability to manage outlay risk and invest in R&D, facilities, and people. It would also reduce government deadline pressures to meet artificial obligations or expenditure benchmarks that impact effective contract negotiations. Reducing these pressures would allow the time necessary to achieve the best deal for the Department.

Budget stability is also critical for managing through challenges in program execution. There is a compelling need to establish a Management Reserve (MR) account to address the execution risks inherent to every major program. Absent an MR account, each program is left to establish and protect its own MR, which at best, results in inefficient resource allocation. At worst, those programs unable to provide for such reserve within the program's budget suffer program breakage as funding shortfalls emerge in the course of program execution. An MR account to be

administered by the Services could be established with unobligated funds and be used by the Services to address individual program risks or urgent needs that have emerged in an execution year.

Making Every Dollar Count

As stated earlier, the DoN's requirements exceed the DoN budget. While it is left to the budget cycle to balance the two, it is essential that, corporately, efficiencies are achieved by procuring at efficient rates, leveraging investments across multiple programs, and maintaining year-to-year stability in programs. In short — making every dollar count.

Program by program, the DoN remains committed to competition - at the prime and subcontract level - through early prototyping, spiral development, open architectures, fixed price contracts, and effective use of incentive fees. Competition or competitive rivalries can take many forms. Head-to-head competition is not appropriate for everything the Department buys, nor is it always an available option, but in almost all cases, it is a Program Manager's best friend.

The DoN has successfully applied multiple and various forms of competition, beginning with competing against the budget itself — ensuring each dollar spent is necessary to meet a requirement. Beyond that, the DoN has recently applied direct, full and open competition to major programs to include Next Generation Jammer, Consolidated Afloat Network Enterprise System (CANES), NGEN, Presidential Helicopter, and Amphibious Combat Vehicle (1.1). Taken together, the savings generated relative to pre-award independent cost estimates have been significant and allowed the Department to direct those savings to increase procurement where we fall short of the warfighting *capacity* requirement.

In cases where there is a fragile and limited industrial base, the DoN has competed profit between two primes; competed quantity; competed different solutions which satisfy the same requirement; combined acquisitions in a competitive manner; and tied successful cost-proposals in limited competitions to anticipated additional quantity. Various competitive forms have allowed the Department to make every dollar count.

Open architecture has proven to be a necessary component to achieve repeatable and sustained full and open competition and to level the competitive field, allowing small business to compete head-to-head with large business. The DoN's previous open architecture success in the Submarine Acoustic Rapid COTs Insertion Program established a business model that has been replicated in other DoN programs, including AEGIS Combat System modernization, F/A-18, Littoral Combat Ship, Air and Missile Defense Radar, CANES, NGEN, and MK 48 Torpedo Programs, to name a few. The DoN's experience with open architecture has emphasized an important principle that affects acquisition reform — DoN "ownership" of the system interfaces/protocols/definitions is necessary for success, placing added emphasis on the need to hire and retain outstanding technical talent.

Further, there is a need to ensure that total ownership cost, including energy considerations, carries weight in the formulation of major acquisition strategies and source selection criteria. These fundamentals are emphasized in Department policy, including policy that emphasizes program decisions that favor DoN corporate interests, though such policy may at times appear at odds with individual program preferences.

The Program Manager is expected to execute within the framework of established requirements and budget. During execution, it is important to sustain a constant effort to pursue cost reductions and bring forward recommended changes to specifications, scope, requirements, policy, acquisition strategy, or management practice that would meaningfully reduce program cost or risk without substantively impacting key requirements — regardless of what phase the program is in. The DoN's Program Managers are tasked, not merely with understanding the basis of estimate for their programs' costs, but equally or more importantly, to understand what drives those costs and to formulate a strategy to reduce those costs in accordance with the program's best estimate of its "should cost" — again, making every dollar count.

Relying on an Experienced Acquisition Workforce (AWF)

An experienced Acquisition Workforce is the single-most important fundamental in achieving strong, repeatable performance in Defense acquisition. GAO has reported that "the principles and practices that programs embrace are determined not by policy, but by [Program Managers']

decisions." The business of Defense acquisition consists of tens of thousands of individual decisions made daily — requirements, technical, contracting, financial, supply, etc. — and the more experienced and qualified the AWF, the better the decisions. The best acquisition outcomes are produced by the most experienced acquisition people — in technical knowledge and business acumen. As the Undersecretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)), Frank Kendall, stated to the Senate Homeland Security and Governmental Affairs Subcommittee on Contracting Oversight on April 30, 2014: "Maybe we've been changing the wrong things. Defense acquisition is a human endeavor, and my view is that we have focused too much on organizational structures, processes, and oversight mechanisms, and not enough on providing people with the skills and the incentives they need to be successful."

The AWF requires highly-educated and highly-skilled professionals in the following areas: Scientists & Engineers; Contracts Officers; Program Managers; Cost Estimators; Financial Managers; Logistics Managers; Auditors; Acquisition Attorneys; Information Technology Professionals; and Construction Engineers and Architects. It requires highly talented and dedicated military and civilians who are the "Special Forces" of the federal civilian workforce. To recruit and retain the best and brightest for this work so that the DoD AWF becomes the premier technical and business workforce in the world, requires changes to human resource authorities, accommodations, and compensation.

The idea of building and retaining a highly capable AWF as the cornerstone of improving the Defense acquisition system is not new. Indeed, echoing similar findings of the Blue Ribbon Defense Panel in its report to the President in July 1970, Dr. Ron Fox states:

> "Were there a more attractive government career in DoD acquisition management, it would then be possible to minimize the conflicts associated with frequent turnover of military personnel and widespread military retirements to industry, while preserving the rights of individuals to careers in acquisition management. The basic goal of any legislative remedy must be achieving and maintaining outstanding competence and integrity to the Defense acquisition system."

The same statement is true for the civilians who make up the AWF.

The professional Acquisition Workforce, however, is increasingly difficult to sustain. The AWF operates in a human capital system that was not designed with the 21st century professional employee in mind. It is archaic and lacks agility to hire and retain an elite workforce. Further, the AWF remains subject to the same undistributed government personnel reductions as with any other part of the federal workforce and, today, is operating in the shadow of the FY 2013 furlough and FY 2013 government shutdown. The prospect of the same scenario looms in the current budget cycle. None of these facts are attractive to prospective hires or the current acquisition professionals the Department must retain.

Congress has recognized the Department's need for a large, robust, highly qualified AWF, and provided much-needed legislative relief with the passage of Section 852 in the 2008 National Defense Authorization Act (NDAA) and Section 219 in the 2009 NDAA, and support for the Department's desire to expand the Acquisition Demonstration Project to more of DoD's AWF. These provisions, which have been amended several times, provide helpful authorities for AWF hiring, training, and retention, as well as budget authority dedicated to rebuilding the Department's in-house Science and Engineering foundation. These provisions are important and the DoN is grateful to the Congress for their support. But for the 21st century AWF, more agility will be needed to hire and retain quality people with elite skills.

Fostering a Healthy Industrial Base

In the end, improving acquisition outcomes relies upon performance by industry, so it is appropriate to understand the issues affecting industry's performance. Industry needs experienced engineers, skilled tradesmen, capital to invest, and fair opportunities for stable production and repeatable profits over the long-term. On the other hand, Defense acquisition needs sustained competition, repeatable cost performance, and repeatable product performance.

The difficult reality is today's defense industrial base is fragile, less competitive, has limited U.S. growth opportunities, and continues to face an uncertain defense and national budget environment. The result is a somewhat smaller, less competitive defense industrial base comprised of large consolidated prime integrators with multiple tier suppliers. The primes are

often compelled to invest outside of defense to maximize shareholder value. Without more stability and predictability in defense budgets, there is less defense market investment and innovation, and less product affordability without more companies in the market to improve competitive pricing.

Attracting new entrants into the defense industrial base to offset the loss of innovation and competition has proven challenging as well. Barriers to entering the defense market remain chronically high as the overhead cost of entering and operating in a unique, uneven, and overly bureaucratic market discourages prospective entrants — both large and small commercial companies.

These industrial base (and supply chain) realities come at a time when Combatant Commanders, via the requirements process, need and expect the Defense acquisition enterprise to respond with significantly more speed, agility, and innovation. No longer are the small, rogue non-state actors the only ones able to supply warfighting units with material capability faster than the U.S. Defense acquisition system can respond. Even a country the size of China can now produce capability seemingly much faster than its U.S. counterpart because, in part, it is unburdened by U.S. Defense acquisition laws, regulations, and policies. The unfortunate mismatch is that warfighters are expecting the acquisition system to respond at the speed-of-technology at a time when agile and more affordable medium and small businesses find it increasingly difficult to penetrate the Defense acquisition bureaucracy.

As our industrial base and its supply base continue to undergo reshaping as a natural response to U.S. and global economic conditions, it is vital that weight be given to these factors when considering any new legislation or policy affecting Defense acquisition.

Final Thoughts

Defense acquisition is a large enterprise of complex, interdependent systems-of-systems, engineering disciplines, procurement rules, budget rules, organizations and processes. Oversight and governance of the enterprise is necessary and is expected, but it is crucial to strike the right balance in order to achieve affordable outcomes. The penalty for too much oversight is ever-

increasing costs and impediments to execution that have no ceiling. The penalty for too little oversight is the costs and risks of rework for unforced errors. Oversight and governance requirements have added multiple layers of prescriptive processes, authoritative organizations and extensive reporting and documentation requirements. In short, the sheer size and overlapping nature of the bureaucracy runs counter to objectives of efficiency, productivity, and performance.

Lessons learned from highly successful programs highlight that the right balance is attainable by applying the fundamental disciplines already known and available to each Program Manager (like those expressed here), then exposing the products of that discipline to simplified oversight by an appropriate but limited number of *highly experienced managers, engineers, and business executives* who serve at the Service Secretariat and OSD levels in policy oversight capacities. The fundamentals expressed in this statement have proven to produce successful acquisition outcomes. The DoN recommends the subcommittee work with USD(AT&L) in the current effort to identify and roll back legislation that has produced unnecessary and redundant, regulatory and reporting burdens on Program Managers which have the effect of thwarting the steady application of these fundamentals.