

REPORT TO THE SECRETARY OF DEFENSE

INNOVATION: Attracting and Retaining the Best of the Private Sector



Defense Business Board

Report FY 14-02

Innovation: Attracting and Retaining the
Best of the Private Sector
Report 2014-02



PREFACE

This report is a product of the Defense Business Board (DBB). Recommendations by the DBB are offered as advice to the Department of Defense (DoD) and do not represent DoD policy.

The DBB was established by the Secretary of Defense in 2002 to provide the Secretary and the Deputy Secretary of Defense with independent advice and recommendations on how “best business practices” from the private sector’s corporate management perspective might be applied to the overall management of DoD. The Board’s members, appointed by the Secretary of Defense, are corporate leaders and managers with demonstrated executive-level management and governance expertise. They possess a proven record of sound judgment in leading or governing large, complex corporations and are experienced in creating reliable solutions to complex management issues guided by best business practices.

Authorized by the Federal Advisory Committee Act of 1972, the Government in Sunshine Act of 1976, and other appropriate federal regulations, the Board members are a federal advisory committee and volunteer their time to work in small groups (subcommittees) to develop recommendations and effective solutions aimed at improving DoD.

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EXECUTIVE SUMMARY

This report looks at innovation. Specifically, the Department of Defense (“DoD” or the “Department”) has asked two questions: first, whether the Department is successfully attracting the most innovative ideas and offerings from the private sector outside of its traditional supplier base?; and second, whether the Department is losing, or running the risk of losing, some of its most innovative traditional suppliers? The conclusions of this report are that the DoD is not attracting the most innovative offerings of the private sector, and that it is losing some of its traditional suppliers. This report identifies some of the primary causes of these trends, and notes a number of specific actions that the Department can take to address the core issues and reverse the trends.

For commercial industry (defined in this report as industry that is not part of the traditional Defense Industrial Base) the DoD represents, at best, an “adjacent” market. To recognize this reality is to recognize that if DoD wants to engage these companies it is the DoD that must change its ways. Commercial industry is not oriented around or familiar with Federal Acquisition Regulations (FAR), government Cost Accounting Standards, lengthy procurement cycles, and other unique U.S. Government processes and it will not play by these rules and regulations if it has more attractive market alternatives. Commercial sectors that fund their own research and development (R&D), invest for competitive advantage, and price-to-market their offerings will not change their basic business models to do business with a Department that imposes significant costs that are unique to its acquisition system and which is committed to cost-based pricing, regulated or otherwise restricted returns on investment, and lengthy and expensive decision-making and review processes.

The DoD must change its approach to attract commercial industry beyond its traditional suppliers within the Defense Industrial Base.

This report looks closely at the different types of innovation, addresses the question as to the overall health of the Defense Industrial Base (DIB), and underscores the critical importance of profit as a prerequisite to investment in innovation. It then identifies steps the DoD can take in order to be more attractive to the commercial sector. It is significant to note that the changes recommended in this report do not require any new legislation, executive orders, or other external permissions in order to be implemented. The Department has all necessary authority to enact the recommended changes.

The Task Group recommendations focus on what is necessary to achieve desired outputs rather than dwell on existing processes, many of which are antiquated. The recommendations seek to open up



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what is a largely closed, vertically integrated system – both in how major programs are designed and how the industry supply chain has evolved. It addresses unintended consequences stemming from actions taken in response to the recent budget reductions, and looks at how to rebalance and retrain the roles of program and contract offices in order to achieve better acquisition decision making. Specific recommendations fall in three areas: internal DoD policy and process changes, program and industry structure changes, and messaging.

With regard to DoD policies and processes, the Task Group makes the following recommendations:

- Establish FAR Part 12 as the default procurement method for non-platform acquisitions;
- Revamp DoD acquisition training to provide greater focus on FAR Parts 12 and 10, and commercial business models;
- Establish a commercial “ombudsman” with decision-making authority to help cut through and simplify DoD internal processes and to serve as an advocate for commercial industry;
- Rebalance policies on the ownership and rights to intellectual property; and
- Address and remedy unintended consequences of recent budget reduction actions.

In the area of program and industry structure changes, the Task Group recommends the following:

- Require the adoption of an open architecture, modular approach to new mission-essential platforms; and
- Take steps to open a closed supply chain; re-examine industry structure and encourage new entrants.

With regard to messaging, DoD needs to provide clear and consistent messaging as to its goals and interest in opening up its community of suppliers to more commercial participants. DoD must confront a widespread industry perception that DoD is against profit and, therefore, seeks to minimize it.

The Task Group concludes that for the DoD to maintain military supremacy, it must recognize that competitive advantage will come less from having critical technologies that it can deny others, and more from its ability to procure quickly, and then test, integrate, and deploy to achieve “first to market” advantage. Benefits that had derived from technology in the past must increasingly be provided by speed, agility, and flexibility in the procurement and deployment of that technology in the future.



INNOVATION: ATTRACTING AND RETAINING THE BEST OF THE PRIVATE SECTOR

TASK

The Deputy Secretary of Defense (DEPSECDEF) tasked the Defense Business Board (hereinafter referred to as “the Board”) to establish a Task Group to assess whether the Department of Defense (hereinafter referred to as “DoD” or the “Department”) is attracting the most innovative ideas, offerings, and technological advancements from the private sector. The Task Group was asked to determine what the Department can do to attract innovation from both inside and outside its traditional supplier base, with particular attention paid to smaller, technology-focused companies. The Task Group was also asked to determine whether the Department was losing some of its more innovative suppliers. A related question is whether the Department’s actions are causing it to become a less desirable customer to companies within and outside of its traditional supplier base. The study’s findings and recommendations were approved by the Board at its quarterly meeting on July 24, 2014. ¹ A copy of the terms of reference outlining the scope and deliverables of the Task Group can be found at Appendix A. ²

1. A copy of the final briefing slides, as approved by the Defense Business Board, can be found on the Board’s webpage: <http://dbb.defense.gov/Meetings/MeetingJuly2014.aspx>
2. The original terms of reference was subsequently modified and narrowed in scope in later discussions with DoD senior leadership.



Our Tasking

- Is DoD attracting and sourcing the most innovative offerings and ideas from the commercial marketplace?
If not, why not?
- Is DoD losing some of its more innovative suppliers?
If so, why?

Note: See appendix for original Terms of Reference

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Figure 1 - Tasking slide.

Members of the Task Group were chosen based on their private sector perspective, particular skillsets in areas critical to innovation, finance and investing, and knowledge of the Department's operations. Mr. David H. Langstaff served as the Task Group Chair. The other Task Group members were Mr. Denis Bovin, Mr. Lon Levin, and Hon. Dov Zakheim. Ms. Sally Donnelly served as a consultant to the Task Group. Ms. Kelsey Keating served as the staff analyst. Biographies of Task Group members are provided in Appendix B.



BACKGROUND

The commercial marketplace is increasingly important to the DoD given that considerable technology leadership critical to our nation’s defense has moved from within the Department and the Defense Industrial Base to companies outside the traditional base. Secretary Rumsfeld noted over a decade ago that in a number of areas – notably digital storage – technological leadership had passed to the private sector, and that the Department of Defense was just “along for the ride.” Today, this transition is apparent in even more segments of technology, including cyber security, robotics, cloud and network infrastructure, launch vehicles, “smart” communications technologies, and data analytics – to name a few. To maintain technological and tactical superiority for our warfighter, the Department must address this market shift by examining its procurement methods as well as determining whether it is getting the innovation it needs, when it needs it.

Becoming a more attractive customer to companies that are not traditional suppliers to the Department (to be referred to hereinafter as “commercial companies” or “commercial industry”) will require fundamental changes within the DoD. Commercial companies not serving the Department of Defense today do not, in fact, need the Department of Defense for their business success. At best, the DoD market is an adjacent market, and may not even be considered a sizable and therefore an attractive market to serve. For the most part, commercial companies that might consider selling to the Department will not be willing to change their business model or incur additional and otherwise unnecessary costs in order to do so. Consequently, if the DoD is to access innovation from the commercial marketplace, the Department will need to change its methods of engagement and procurement; in essence, the DoD will need to engage the private sector more on commercial terms.

“Commercial companies not serving the Department of Defense today do not, in fact, need the Department of Defense for their business success. At best, the DoD market is an adjacent market...”

This report identifies a number of the barriers to commercial engagement that need to be removed. It also suggests immediate steps that the DoD can implement now (i.e., without the need of outside approvals) that can encourage the private sector to view the Department as an attractive customer. The final section of the report explains the areas where the lack of understanding of innovation dynamics, business operating models, and capital markets has led to confused communications and has complicated, and even undermined, the Department’s efforts to attract innovative companies that currently are not part of its industrial base.



APPROACH

The focus of this study is innovation: how to encourage, strengthen, access, and retain innovation. The goal is to provide realistic, actionable recommendations that address DoD's priority issues. The Task Group avoided restating or "admiring the problem." Instead, the study goes beyond the obvious and drives to root causes. The Task Group recognizes that the Department's bureaucracy has a rigid and risk-averse culture and is resistant to change. Existing DoD procurement and acquisition systems reflect and strengthen this culture. Rather than complain about the culture, or suggest accurate but un-actionable recommendations that DoD simply change its culture or be less risk averse, the Task Group instead focused on leverage points that allow the Department to initiate change that, over time and combined with strong leadership, can begin to change behavior, and can in turn begin to change culture.

On the topic of culture and bureaucracy, the Task Group did not shy away from confronting bureaucratic elements that must be altered or eliminated. These steps must be taken. We recognize, however, that bureaucracies over time reinforce the existing culture and that the bureaucracies' personnel perform their jobs as they have been instructed or trained. Only strong and sustained leadership can counteract this inertia and make the desired and necessary changes.

The Task Group took a holistic, or "systems view," of the issues to avoid oversimplifying challenges or focusing on issues out of context. Often the problem is not the issue itself, but how the issue relates to other forces, policies, agendas, or goals. Therefore the Task Group made recommendations based on a firm understanding of the system as a whole.

To understand the issue of innovation and the forces that incentivize or discourage it, the Task Group reviewed pertinent literature and interviewed a broad array of individuals from inside and outside of government. Within the Department the Task Group interviewed policy experts, innovative acquisition professionals, and retired change agents. From the private sector, the Task Group focused on companies from within the Defense Industrial Base, commercial companies that serve both defense and non-defense markets, and companies that do not serve the Department at all. We conducted over 40 interviews with defense analysts, Wall Street defense market experts, and leading thinkers on commercial innovation. Through these interviews the Task Group was able to interact with groups from Silicon Valley leadership, the venture capital community, regional technology councils, and other relevant groups. A list of interviews and literature considered by the Task Group is provided in Appendix C.



This report is not a study of the Defense Industrial Base, nor is it focused on small businesses. There are excellent, data-rich reports that address these subjects. External organizations such as the National Defense Industrial Association, the Center for a New American Security, the Center for Strategic and International Studies (CSIS), the Center for Strategic and Budgetary Assessments, and the Professional Services Council have all produced work in these and related areas. The Department itself is also pursuing assessments through offices such as Performance Assessments and Root Cause Analyses.

Approach

- Our topic: innovation
- Our goal: provide realistic, actionable recommendations
- Our focus:
 - Take a systems approach, with attention to cause-effect relationships
 - Go beyond the obvious; drive to root causes
 - Recognize DoD is a bureaucracy with a bureaucratic culture
- This report is not...
 - Study of the Defense Industrial Base
 - Study of small business

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Figure 2 - Approach slide.



Interviews

- DoD: current and retired OSD and Services acquisition senior leaders
- Private sector: large and small commercial companies largely outside the traditional Defense Industrial Base (DIB)
- Private sector: large and small companies primarily focused on defense markets (members of the DIB)
- Financial market experts
- Commercial innovation experts
- Think tank and defense industry experts

Over 40 interviews conducted

Note: Opinions expressed are of DBB Task Force and are not to be attributed to any particular interviewee except as noted

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Figure 3 - Interviews slide. See Appendix C for a list of Task Group interviews.



INNOVATION

Innovation is like trust: trust cannot be demanded, it must be earned. Innovation comes at the end of a process: one cannot just demand innovation; it results from opportunity and incentive (in the form of expected benefit) that generate desired behavior. Today, the Department provides insufficient incentives and inadequate opportunity to foster innovation.

A systems approach to innovation requires a look at the conditions that enable or discourage innovation – the forces and cause/effect relationships that encourage innovation, or alternatively, erect barriers to innovation. Stated another way, in order to encourage and invite supplier innovation, the DoD must first eliminate some of its existing internal processes that serve as significant barriers to innovation.

Dr. Clayton Christensen of the Harvard Business School, a leading expert on innovation, has characterized innovation as both sustaining and disruptive, and divides innovation into three segments: evolutionary, efficiency-focused, and revolutionary. Dr. Christensen defines evolutionary innovation as incremental improvement, such as the next generation of a product. The customer stops buying the first product and then buys the next product. It replaces the old with the new, with the goal of sustaining or maintaining the customer base.

Efficiency innovation is more about process improvements and is done to enhance margins, maintain market share, or to free up capital. An example of efficiency innovation in government contracting is when industry looks to streamline processes and reduce costs under fixed price contracts in order to enhance margins and release working capital.

Revolutionary innovation is perhaps the trickiest to achieve; by definition, it is a game-changer. It creates new markets, new business models, and can be job-creating. It also often eliminates jobs tied to older, displaced technology. In this way, it is disruptive and can be controversial. Revolutionary innovation penetrates adjacent markets and then erodes the core market of the dominant competitors, first attracting new consumers and then taking existing consumers from market leaders. Profits can be initially low, but increase as market share and volume grows. Such disruptive innovation often occurs where dominant suppliers “over-reach” to their customers, thereby creating opportunities for new entrants at the bottom. Revolutionary innovation can lead to new business models, further exposing the weaknesses of large incumbents.



Commercial Examples of Three Types of Innovation

Evolutionary (sustaining): Microsoft moving from Xbox to Xbox 360, or from software release 2.0 to 3.0. An automobile manufacturer introducing a new model of an existing automobile, with new features, in an effort to retain its customer base.

Efficiency (sustaining or disruptive): Walmart introducing a streamlined inventory management system, buying in quantity by way of aggressively negotiated supplier contracts, thereby achieving cost points that many competitors could not match. Prime contractors investing in business process improvements under a fixed price performance-based contract in order to enhance margins.

Revolutionary (disruptive): Netflix challenging Blockbuster, focusing initially on mail delivery of independent films rather than incurring real estate and distributed inventory costs and offering the most current releases of films. Netflix then disrupting itself by introducing streaming video on demand. Airbnb, Minute Clinics, and Uber are other examples of companies eroding existing markets (hotels, medical services, and car services, respectively) by changing business models and focusing initially on non-traditional or low-end consumers.

Another way to think about innovation is in terms of “top-down” versus “bottom-up.” In the DoD market, “top-down” innovation is the realm of contracted research and development (R&D) and Independent R&D (IR&D), where the Department knows and can articulate what it is looking for, and therefore fund or encourage R&D in areas of importance. A comment heard from industry in connection with this study is that DoD is not making clear where it wants innovation, and therefore is not signaling how industry should invest its government-funded IR&D funds.

“Bottom-up” innovation tends to be more disruptive in nature as it is not driven by a specific customer-stated or directed need. From the DoD perspective, this form of innovation is sourced from non-traditional suppliers and self-funded R&D and can lead to major breakthroughs. Whereas “top-down” is usually managed, “bottom-up” tends to bubble up from the global marketplace. DoD must encourage both kinds of innovation to meet the needs of the warfighter.

It is worth touching on the three different approaches to research and development: contracted R&D, independent R&D, and self-funded R&D, as defined in the box below. While the definitions



of the three types of R&D are clear, complications arise when R&D activity is pursued using a combination of government and industry funds. It is in this area that clarification is needed.

Three Types of Research and Development (R&D)

Contracted R&D (CR&D) represents services for which the DoD contracts, as it does many kinds of services. In this case, the services constitute R&D services, with the focus being either general or specific. CR&D does not represent industry risk capital, nor should industry automatically have any kind of ownership of the intellectual property or technologies that result, unless such ownership is negotiated in the services contract.

Independent R&D (IR&D) represents expenditures that industry makes in undertaking R&D of its choosing, but with government funds. Specifically, the funds industry expends for this kind of research are bundled into its general and administrative or overhead cost pools and subsequently billed to the government on an established billing cycle. In the case of IR&D, the expenditures do not constitute industry risk capital, but do represent industry resource allocation decisions. Industry's claim that IR&D represents its own risk capital is in our view, wrong. Ownership of the intellectual property or technology that results from IR&D needs to be clarified. It would be appropriate for such ownership, or the rights to use the technology developed, to be shared between government and industry.

Self-funded R&D (SFR&D) is characteristic of the commercial industry, and also occurs (to a much lesser extent) within the DIB. It represents the expenditure of industry's own capital into R&D or other similar investment areas. In this case, the funds being invested are not recovered by bi-monthly, monthly, or progress payments charges to the government. This capital is truly risk capital by industry; ownership of the results of such investment, including intellectual property, should reside 100% with industry.



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Industry invests in innovation for many reasons, including: market or product differentiation, competitive advantage, enhanced revenue growth, or enhanced margin and long-term profitability. They invest because they want something that will add value and sustain profitability. Government actions, whether purposeful or inadvertent, have erected barriers against most of these advantages, thereby destroying the fundamental incentive to innovate. The government approach seems anchored in a concept of fairness, and the importance of creating a competitive playing field that disadvantages no prospective bidder. While there may be other reasons why this approach is important, from the standpoint of encouraging innovation and inviting greater commercial sector involvement with the DoD, it is like hanging an "Innovation – Not Welcome" sign on the door.

“Government actions, whether purposeful or inadvertent, have erected barriers against most of these advantages, thereby destroying the fundamental incentive to innovate.”

The simple point is that the Department of Defense needs all three types of innovation-evolutionary, efficiency, and disruptive. Unfortunately, it has created disincentives against all three.



Innovation: DoD and Commercial Markets

- DoD needs both sustaining and disruptive innovation
 - Sustaining innovation tends to be “top down”
 - Focuses on addressing known problems; managed
 - CR&D (contracted) and IR&D (independent) can address
 - Disruptive innovation tends to be “bottom up”
 - Source of major breakthroughs; organic
 - Sourced from non-traditional, self-funded development
- Why does industry seek and invest in innovation?
 - Source of differentiation and competitive advantage
 - Revenue growth; margin expansion; return on investment
 - Long-term profitability; sustainable value

DoD has inadvertently erected barriers against innovation

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Figure 4 - The importance of innovation to DoD and incentives for industry to invest in innovation.



FINDINGS

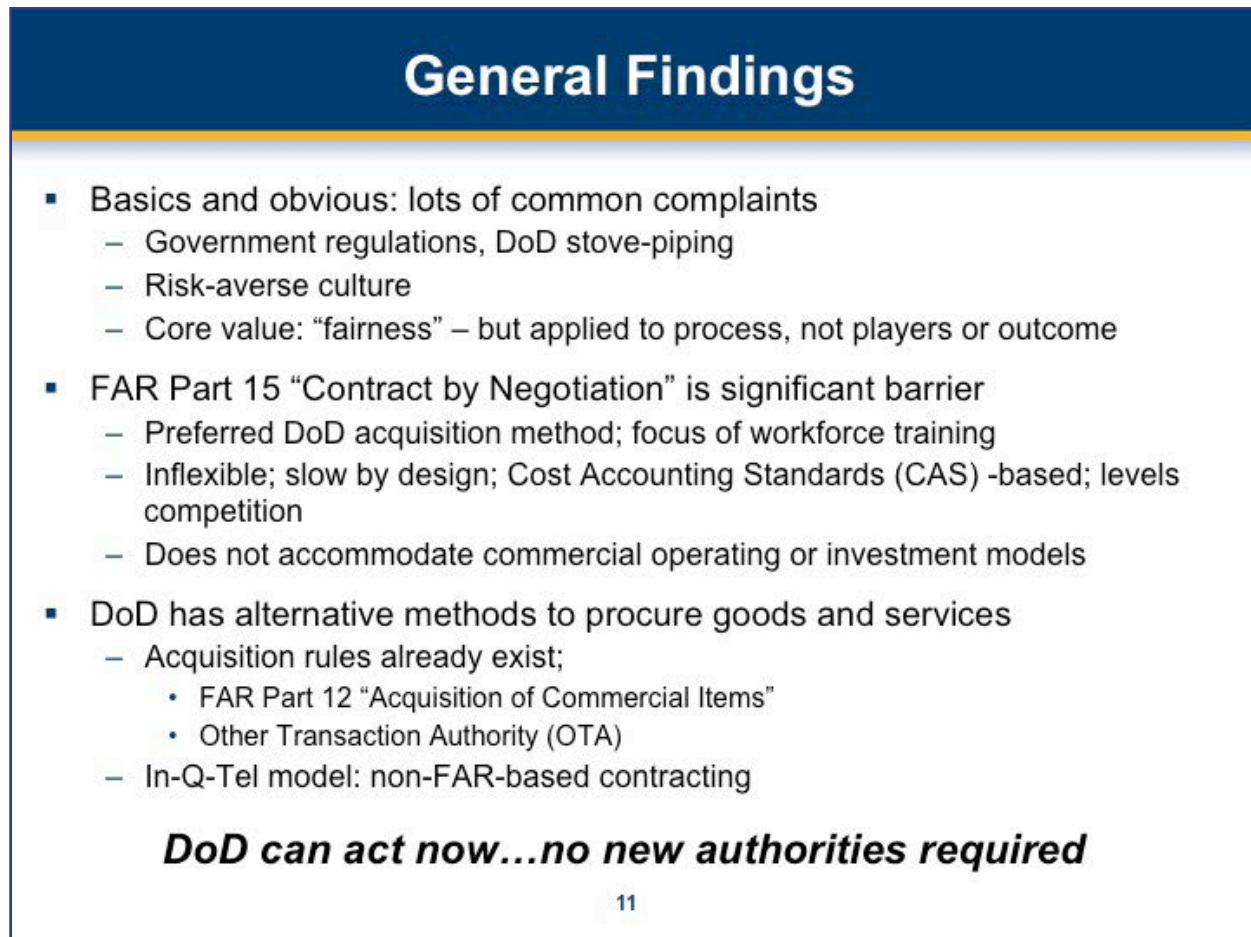


Figure 5 - General findings.

GENERAL FINDINGS

There are many common complaints throughout government and industry as to why it is challenging to implement change and innovation within the Department. These complaints have been well documented in other studies and are oft-cited by industry: onerous government regulations; stove-piping within DoD where innovation lies within one service or agency but is not known in or shared with other parts of DoD; a culture of privacy rather than openness; a culture of risk aversion at almost any cost; and blaming the major prime contractors and their love of the status



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quo. These points are valid and do pose problems, but they are not the root cause of the problems surrounding innovation.

A common response from DoD personnel as to why the acquisition process is as cumbersome as it is, with all the regulations and rules, stems from a stated commitment to “fairness,” i.e., ensuring that a competition is “fair”. Yet, it must be asked: “fair to whom?” The process is certainly not fair to the military, which is not getting what it needs due to the long procurement process. It is not fair to the taxpayer, who is paying for goods and services at a much higher price than necessary due to the long procurement times and the over-prescriptive requirements that in turn require DoD-customized approaches and additional bureaucracy to oversee the system. And it is not fair to industry, which seeks competitive advantage from the investments it is willing to make. If anything, the current system is fair to the non-innovator, low-value player who has mastered the bid and proposal system. Accordingly, the Task Group believes that this often cited notion of fairness needs to be reexamined. It has evolved into a notion of fairness that relates solely to process and is independent of desired results.

“...the current system is fair to the non-innovator, low-value player who has mastered the bid and proposal system.”

The Task Group believes that one root cause is the overwhelming commitment of acquisition personnel to the process outlined by Federal Acquisition Regulation (FAR) Part 15 “Contract by Negotiation.” This preferred DoD acquisition method for all but the most basic of commodity purchases stands as a significant barrier to innovation. FAR Part 15 tends to be inflexible, is based on a strict adherence to the cumbersome Cost Accounting Standards (CAS), and is slow by design. It was developed many years ago at a time when attracting innovation from non-Defense Industrial Base suppliers was not a goal of the Department. FAR Part 15 does not accommodate commercial operating or investment models. In practice it is the Department’s default rule set and is almost the sole focus of workforce training. The excessive use of FAR Part 15 serves as a major barrier to attracting commercial innovation.

The very good news is that acquisition rules already exist for the Department to acquire innovative products and services at cost effective prices. Within existing rules and regulations the Department has alternative methods of acquisition; the DoD has clear, proven choices. In particular, within the FAR there is FAR Part 12 “Acquisition of Commercial Items.” 10 U.S. Code § 2377 outlines the statutory policy for the preference for acquisition of commercial or non-developmental items. There are also statutory authorities, such as Other Transaction Authority, which have been used to great success by the Defense Advanced Research Projects Agency (DARPA) and the National Aeronautics and Space Administration (NASA), and the In-Q-Tel model that allows for non-FAR



based contracting altogether. The Task Group believes that the Department must stop trying to force-fit all acquisitions into its established, FAR Part 15-based system, and instead use all its current acquisition tools to deal with the commercial marketplace.

Closed system discourages innovation

- Programs
 - Components often fully integrated (“hard-wired”) to platforms
 - Architecture, component “buy” decisions often ceded to prime contractor
 - “Hard-wiring” key components to platforms increases program risk, lengthens procurement times, and locks in obsolete technologies
- Industrial Supply Chain
 - High degree of vertical integration is a barrier to new entrants and innovation
 - Prime contractor concentration restricts competition
 - Lack of independent systems integrators creates barrier to innovation
 - CAS flow-down requirements favor subcontracting within the DIB

Major DIB contractors benefit from closed system
Keeps commercial competitors out
Locks in high-priced customer buying behavior

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Figure 6 - Effects of a closed system on innovation.

A CLOSED SYSTEM DISCOURAGES INNOVATION

The Department’s current acquisition system, and the industrial supply chain that supports it, is a highly concentrated “closed system” that discourages innovation. This closed system has in turn established barriers against new entrants, and therefore, against innovation. There are a few prime



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contractors that dominate the industry and dominate the DoD/industry relationship. As of fiscal year 2013, the top five defense contractors accounted for 30 percent of all DoD contract dollars.³ This high degree of concentration, as well as the high degree of vertical integration by the major prime contractors, serves as a barrier to new companies entering the defense supplier base. The lack of sufficient competition at the prime level, and the lack of a vibrant and independent “middle tier” of companies, leads to less customer (i.e., DoD) choice, less competition, and less innovation. The fact that there are few independent systems integrators means that the decision to “buy” is with the prime contractor, which puts significant decision-making power in the hands of a single contractor, with little incentive to seek innovation outside of its own supply chain. If a company is not part of the prime contractor’s supply chain, it is often locked out. The strict CAS flow-down requirements associated with FAR Part 15 procurements creates further incentive for the prime contractor to contract with companies already within the Defense Industrial Base. This closed system is like an electric fence, with existing suppliers on one side and the rest of industry (both commercial and other DIB companies) on the other side. This situation serves as a major barrier against any kind of disruptive innovation from new or unexpected sources.

Within major programs, components are often fully integrated (“hard-wired”) to platforms. Components can be fuel tanks in helicopters, armament panels in aircraft, or multifunction displays in cockpits. System architecture decisions are often ceded to the prime contractor, rather than done by the government or an independent systems architect or engineer. “Hard-wiring” key components to platforms increases program risk, lengthens procurement times, and locks in obsolete technologies. Senior officials in the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics (OUSD(AT&L)) recognize this issue and are beginning to take steps to address the need for modularity in platform design, but the concept has not yet been implemented at all levels.

It is worth noting that many companies within the Defense Industrial Base benefit from this system. A closed system with high barriers to entry, based almost exclusively on FAR Part 15 procurements, keeps commercial competitors out and prevents disruptive new entrants from entering the market. The prime contractor has significant control of the supply chain; in fact, in many procurements subcontractors are prohibited from talking directly to the customer. The end result for the Department is that it locks in higher priced buying because it is not getting the benefits of competition or innovation that could lead to lower prices.

3. Source: <https://www.fpds.gov>



Unintended consequences of budget reduction actions will hurt future innovation

- Lowest Price Technically Acceptable (LPTA) contracting drives reductions in R&D, talent development, benefits, salaries, and experienced personnel
- Staff augmentation model is barrier to institutional value-added; focuses on individual contributors
- Expanded use of Indefinite Delivery Indefinite Quantity (IDIQ) vehicles adds cost, creates employee uncertainty, and represents new barrier to entry
- By focusing solely on cost reductions, DoD has not capitalized on opportunity to drive industry business process innovations
- Low-cost emphasis has led to imbalance between roles of contracting and program offices
 - Program offices often relegated to secondary roles in contract decisions
 - Contracting offices often unable to make “best-value” decisions compatible with mission goals
- Government efforts to reduce profit erodes industry willingness to invest
 - Profit squeeze makes defense industry less attractive in the competition for capital and talent

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Figure 7 - Unintended consequences slide.

THE UNINTENDED CONSEQUENCES OF COST REDUCTION ACTIONS

The Department’s budget was hit hard by the Budget Control Act of 2011 and the subsequent budget sequestration, government shut-down, and overall fiscal uncertainty. While the Department received some modest relief with the Bipartisan Budget Act of 2013, it still operates under the looming threat of further sequestration, congressional discord, and overall budgetary uncertainty – all while still expected to ensure the safety and security of the United States.



Barriers from Contract Selection and Vehicles

In response to this uncertain financial environment, the Department took steps to reduce its expenditures and get “more for less.” Pressures on contractors increased through the emphasis and proliferation of lowest price technically acceptable (LPTA) contracting, staff augmentation contracting based entirely on resume qualifications, and the expansion of indefinite delivery/indefinite quantity (IDIQ) contracts.

All of these actions have had the desired effect of delivering lower costs to the Department. The question is: at what longer term cost? Through the lens of encouraging greater innovation, these contract approaches have had, and will continue to have, a deleterious impact.

In practice, the emphasis of LPTA contracting has been on the “LP” component, i.e., lower prices. While the Department’s Better Buying Power 2.0 attempted to put more emphasis on defining the “TA” (technically acceptable) element, in practice LPTA contracts have been code for lower price. Contractors have reacted in an expected fashion: eliminating or greatly reducing discretionary expenses in order to achieve the lowest and most competitive price possible. Accordingly, companies have eliminated or substantially cut IR&D budgets, employee health, retirement and other benefits, salaries, and training and development of their work force by laying off more expensive experienced people in favor of younger, although less-experienced, people. In order to achieve immediate cost reductions to maximize current competitiveness, companies have made reductions in areas that degrade the long-term quality of the goods, services, and talent.

Similarly, the staff augmentation model (i.e., hiring individual contributors from many different companies based on low cost resume qualifications) serves as a barrier to innovation by putting no value on corporate institutional knowledge, experience, technology, tools, or other sources of value-added. In order for this model to be considered an appropriate approach, one must believe that talent is fungible, that the customer has no need for program management, systems engineering or integration skills, and that industry experience is unnecessary. Work being procured in this fashion should be relatively low risk, with no or low cost of failure, and no impact on mission. There is a great deal of work that has these characteristics, for which staff augmentation contracting is the appropriate approach. But for work or circumstances that do not have these characteristics, it is the wrong approach. From the standpoint of attracting greater commercial innovation, procuring in this fashion is like hanging a “no innovation needed” sign on the front door.

IDIQ contract vehicles have simplified procurements in many ways; they have been applauded for being “more commercial” – they are similar to blanket purchase agreements under which



items or services can be procured quickly at pre-established rates or prices. For certain kinds of purchases they are ideal; however, they are being overused and misused. One form of misuse is turning to IDIQ vehicles as a means to procure significant and long-term work via task orders that instead should merit being stand-alone contracts. Competing for complex task orders after competing for the contract (IDIQ) vehicle doubles the costs to industry, as bidders must compete twice for the work. From the standpoint of attracting innovation, using IDIQ vehicles to issue long-term task orders in areas of rapid technological or other kinds of change is a huge barrier, as it locks out prospective innovative new supplier entrants because they do not hold the original IDIQ vehicle. Almost by design, only members of the Defense Industrial Base that have the knowledge and appropriate business structure (i.e., are already government contractors and thus can recover their bid and proposal costs through other contracts) will bid on the necessary IDIQ contracts. For a company that is innovative and has ideas and solutions to offer, if it does not have the vehicle, it cannot play: it is effectively locked out.

The broadening use of IDIQ vehicles has another near- and long-term “hidden” cost associated with it, which again undermines innovation. This hidden cost is the impact on labor. One attractive feature for DoD users of IDIQ contracts is that it can “turn on” and “turn off” contractors as tasks are completed. This contracting flexibility would appear to enable customers to control the costs of contractors by eliminating annuity-like relationships. In the services sector, such behavior puts a new pressure and cost on contractors who then must deal with employees coming off contracts who then need to be re-assimilated into the work force and deployed on other contracts. This customer flexibility creates huge employee uncertainty throughout the industry, favors big companies over small companies (because small companies have a much harder time assimilating their employees back into the workforce and therefore are more inclined to lay them off), and generally reduces competition. It also feeds a growing employee unease that impacts the overall talent base within the DIB. This point is discussed in more detail below.

Barriers from Requirements Determination

The DoD focus on cost reduction has had two additional unintended consequences worth noting. The first is that assessing cost by looking at prescriptive inputs (e.g., labor costs, other expense categories) has closed the door to business process innovation. By prescribing design requirements, contract officials constrain industry to focus on lowering the costs of each prescribed input, and to do so within the existing business model in order to remain compliant with the proposed contract requirements. Instead, the Department should focus on performance goals, and the basic job that must be performed. This different focus would allow industry to not only consider cost points,



but also consider and propose completely new and innovative ways of performing the work. Said another way, rather than propose innovative ideas that might lower the overall price of a product or service, companies do not challenge traditional methods because to do so is often perceived by the customer as adding new risk. Such an approach also puts the company at risk of being thrown out of the competition for being non-compliant with stated contract requirements.

Barriers from Contracting and Program Office Imbalance

The second additional unintended consequence is the imbalance between the contracting office and the program office due to the increased focus on cost. In order to have successful acquisitions, both offices must work together with similar levels of input and oversight, which results in a balance of cost and value. An imbalance of influence between these two offices is problematic: programming offices tend to favor incumbents while contracting offices tend to favor the lowest cost solution. Today, with the intense budget pressures on cost, program offices are often relegated to subsidiary roles in contract decisions. “Best value” decisions that deliver more value in addressing essential mission goals (sometimes at greater costs) are not being made by contracting offices when the overarching focus is on cost.

This imbalance between program and contracting offices, the use of both LPTA and staff augmentation contracting for the procurement of non-commodity services, and the general pressures on industry to compete on cost have led to what industry calls a “race to the bottom” of undifferentiated and relatively low value-added services in areas where “best value” and talent are, in fact, what the DoD needs.

Barriers from the Misperceptions of Profit

The final component to this discussion on the pressures to deliver a low price is the issue of profit. Industry’s perception is that the Department of Defense is against profit. While many DoD senior leaders have voiced that the Department is not against profit, the fact remains that attacking profit levels of industry is a relatively easy way for the DoD to reduce overall cost. What is clear (and is addressed in the next section) is the Department’s fundamental lack of understanding that a fair and attractive profit is an essential incentive for innovation. Reduced profit, or profit levels that are constantly under attack, erodes the willingness of industry to invest, and has significant implications on industry’s ability to attract capital and retain talent.

“Industry’s perception is that the Department of Defense is against profit.”



In summary, the unintended consequences of actions taken by DoD as part of addressing the immediate and dire budget pressures on the Department have impacted the basic business model of the defense industry. Competitions largely based on lowest cost have all but eliminated “best value” market segments, particularly in the services segment. The emphasis on resumes and low cost are driving industry to cut the expenditures and investments on which innovation depends: workforce training and development, talent, and R&D (both self-funded and IR&D). The associated pressures on profit have contributed to the defense industry becoming less attractive in the competition for investment capital and talent.

DoD lacks sufficient understanding of business operating models and drivers of innovation

- Fundamental business imperative: increase earnings per share (EPS)
 - Work the numerator (increase earnings or profit)
 - Work the denominator (decrease number of shares outstanding)
 - Additional lever: maximize free cash flow
- Profit: the lifeblood of the capitalist system
 - Profit is misunderstood by the government, seen as something to be minimized
 - Profit is not the same as fee on a contract
 - Contract fees contribute to profit, but must cover additional (un-allowable) costs
 - Intellectual property (IP) as a source of value must be allowed
 - Government should focus on the total price it pays for value received
- Profit is risk-calibrated
 - Low risk leads to lower profit levels: higher risks command higher profits
 - DoD: traditionally seen as low risk; increasingly viewed as higher risk

Today: witnessing “de-investment” by the defense industry

Figure 8 - Understanding business operating models slide.



UNDERSTANDING INDUSTRIAL OPERATING MODELS AND THE DRIVERS OF INNOVATION

It became clear to the Task Group during its series of interviews that the DoD workforce, for the most part, lacks an adequate or even basic understanding of industry business and operating models, investment criteria, and the importance of profit as a driver of innovation.⁴

A related point is the confusion over how to assess the health of the Defense Industrial Base and what constitutes a “healthy” industry. This question can be addressed in two ways: by looking at a single point in time (like a still photograph), or by looking at trends over time (like a film clip). Through a snapshot look at the industry today, it could be concluded that the defense industry is healthy – at least for non-services companies. Margins have increased, and stock prices are at relatively high levels. Nevertheless, by looking closer at the data and considering trends over time, it is clear that the current industry is made to look healthy by manipulating factors that cannot be sustained (i.e., there is a limit to the amount of cost reductions that can be achieved and a limit to the degree in which one can forgo employee development and other benefits before losing people). From the perspective of encouraging greater innovation in the future, the trends are disturbing and, in the opinion of the Task Group, reflect an industry of questionably sustainable health that may be a dwindling source of future innovation other than that which is driven by the Department’s “top-down” direction and policies.

“The DoD work force, for the most part, lacks an adequate or even basic understanding of industry business and operating models, investment criteria, and the importance of profit as a driver of innovation.”

The series of charts that follow serve to amplify this point, and shine a light on what is driving Defense Industrial Base stock performance.

4. J. Ronald Fox’s book, “Defense Acquisition Reform, 1960-2009: An Elusive Goal”, published in 2011, identified and highlighted this lack of understanding as a serious problem, and noted that the Defense Acquisition Workforce development curriculum offers no substantive training on business practices, goals, risk management, and decision-making.



Understanding Earnings Per Share

For business, the fundamental imperative is to increase earnings per share (EPS). There are two ways in which business can achieve this goal: work to increase earnings (the numerator) and/or work to decrease the number of shares (the denominator). The way to increase the numerator is to grow revenue, increase profit, and expand operating margins. As shown in figure 9, revenue among the major defense aerospace prime contractors is flat at best; in fact, the company components associated with defense or US Government spending are in decline. What bolsters, in part, the revenue of Raytheon and General Dynamics are sales to international markets (in the case of Raytheon) and to commercial markets (in the case of General Dynamics). Earnings growth is not being driven by revenue increases.



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Revenue trends of defense primes

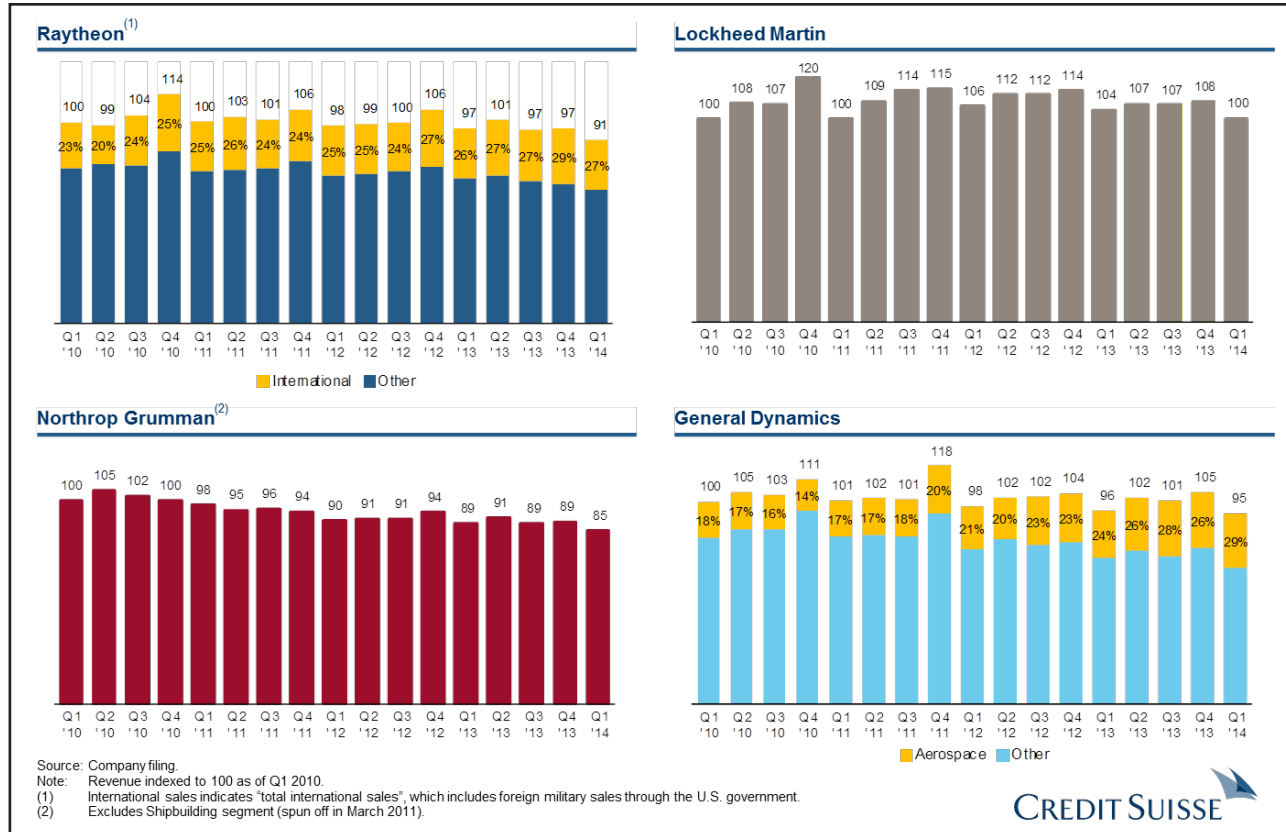


Figure 9 - source: Credit Suisse

Figure 10, shows stock prices increasing (top graph) and operating margins increasing (for the non-service sector, as illustrated by the top line of the bottom graph). The reason stock prices are increasing is due to margin increases – again, for the non-services sector. Margins are increasing for companies with a primarily fixed price contract base, where decreases in overhead and general and administrative expenses benefit the company. Essentially, decreasing costs under a fixed price contract will lead to margin expansion, and therefore a higher profit.

For services contractors with a largely cost-plus contract base, decreasing overhead costs has the opposite effect: it decreases revenue and decreases profit. It has no impact on margins. Service contractors, nevertheless, have felt compelled to reduce costs for a different reason: to maintain competitive rates, and therefore pricing in the increasingly LPTA contract environment, as noted earlier.



Comparison of stock prices and operating margins

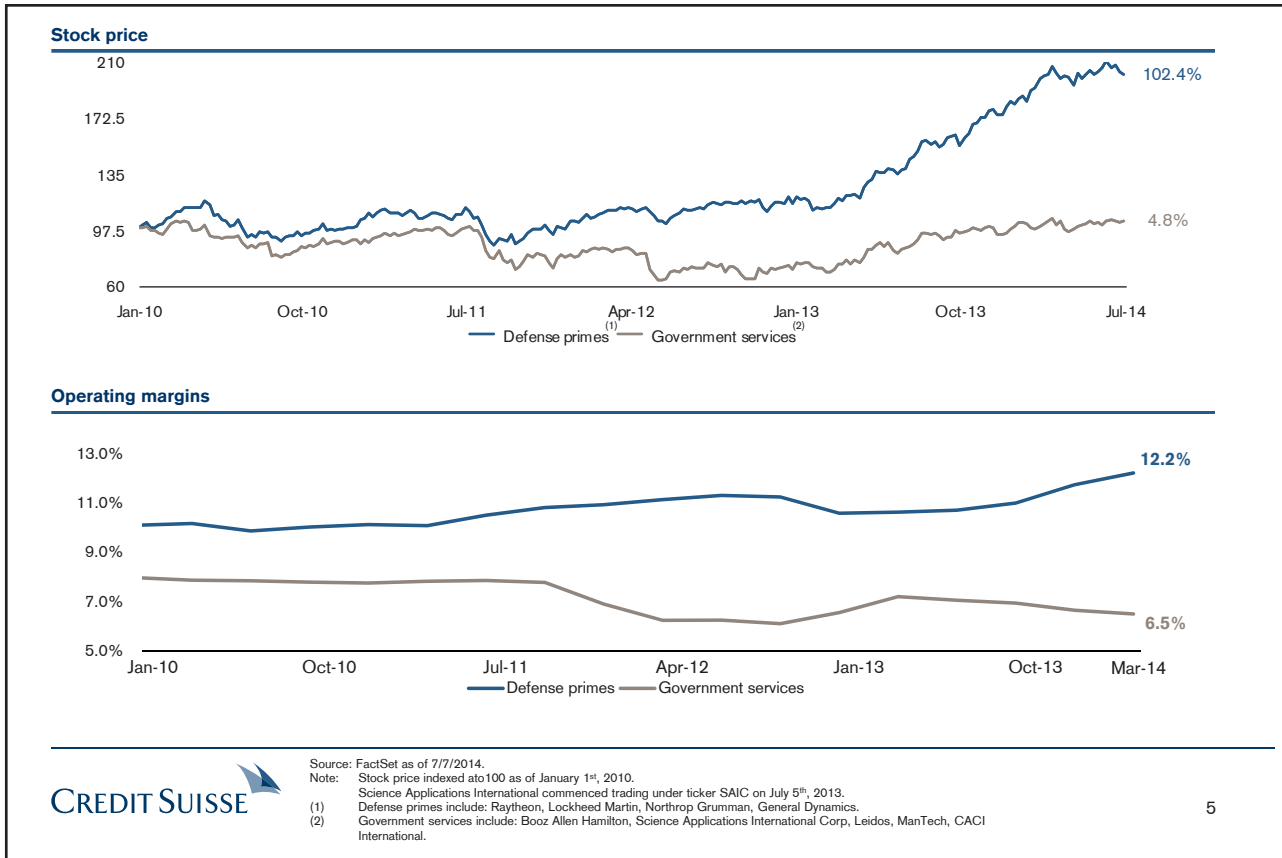


Figure 10 - source: Credit Suisse

Increasing earnings (the numerator), therefore, has occurred not through a growth in top line sales, but by decreasing costs in a fixed price environment, thereby expanding margins and increasing profit. Decreasing overhead and administrative costs has been good for both industry and for the DoD. Unfortunately, it is not sustainable. At some point, costs will reach a floor, where further reductions will impair the ability of companies to deliver the contracted product or service. From the perspective of encouraging innovation, the costs being eliminated are in many instances the costs that DoD would rather see the industry incurring, including R&D, employee training, and development. These costs are investments in the future of the business and in the workforce.

The other way to increase earnings per share in the defense market is to reduce the number of shares outstanding, i.e., the denominator. Understanding what industry has been doing to increase earnings per share by decreasing the number of shares explains the major driver of recent stock price increases.



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Share reduction is achieved by using cash resources to repurchase shares of stock on the open market. In recent years, all the major public defense aerospace companies have been on aggressive stock buyback programs. Figure 11 illustrates the reduction in total number of shares outstanding.

Defense primes' indexed share count

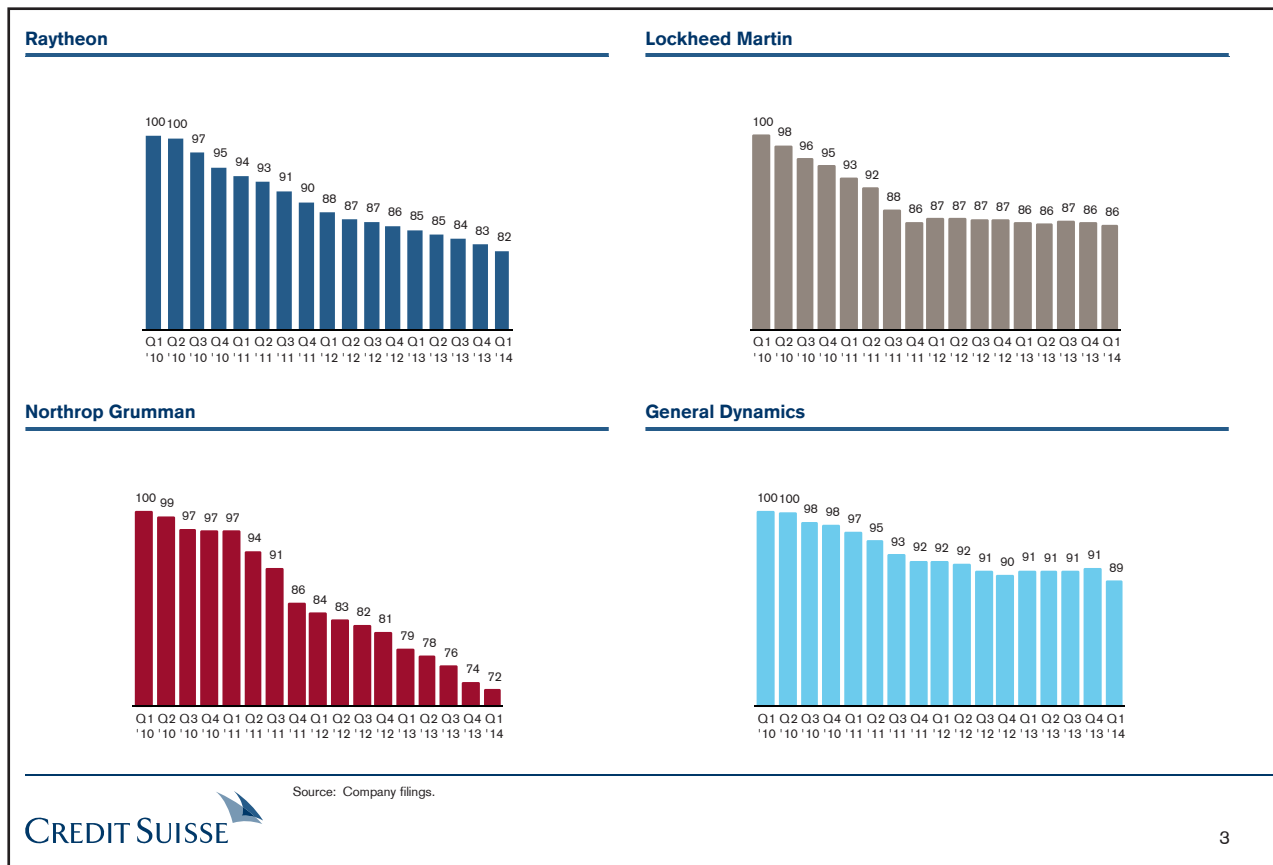


Figure 11 - source: Credit Suisse

Stock prices are driven not only by an increase in earnings per share, but also by increasing the cash distributions per share. Figure 12 shows that while major public defense aerospace companies are decreasing their outstanding shares, they are also increasing the dividends they pay per share. Said another way, not only is the share count being reduced, but the cash payouts per share are being increased.



Defense primes' dividends per share

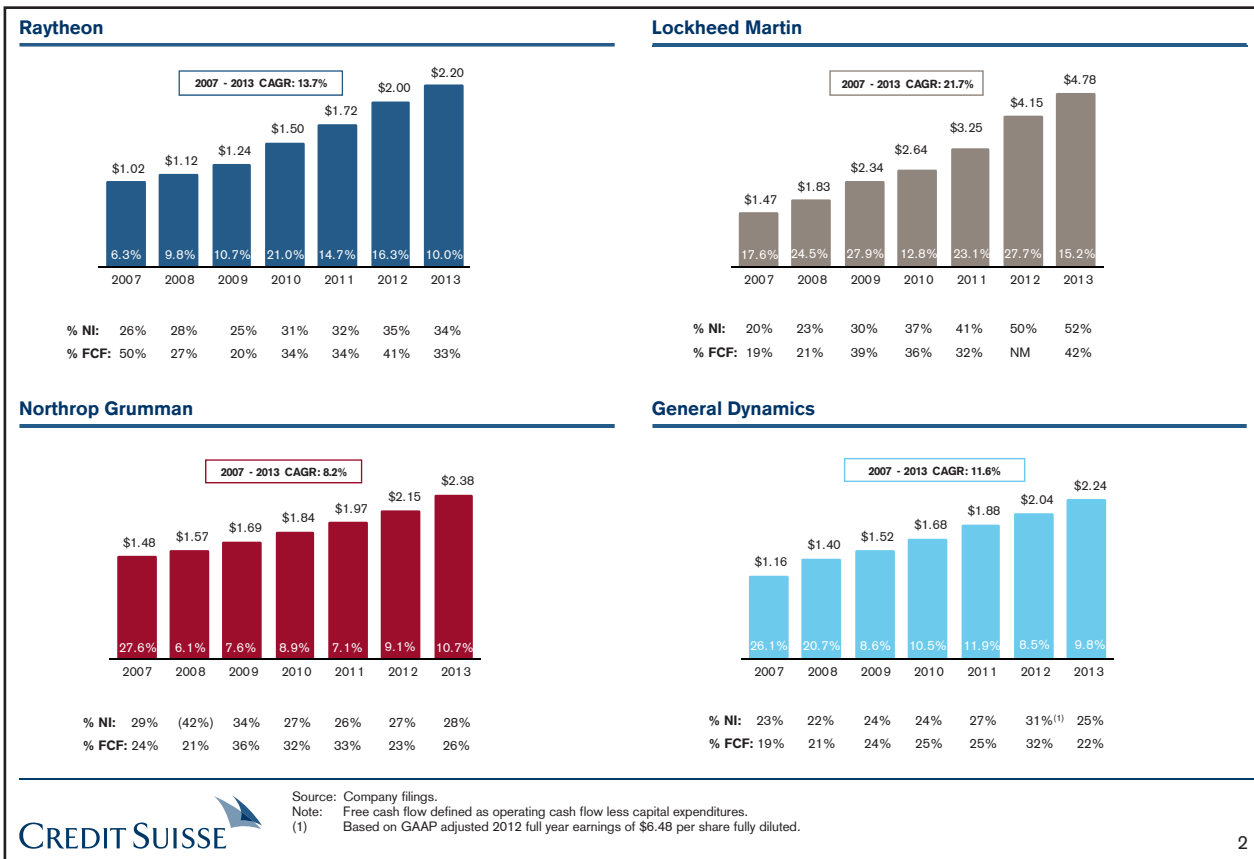


Figure 12 - source: Credit Suisse

Both repurchasing stock and paying dividends use company cash – cash that otherwise could be re-invested in the company in R&D and other areas of added benefit to DoD. Companies are taking more of the money that they are not spending elsewhere and paying it out to shareholders via dividends. While dividends do not factor into the EPS calculation, they are reflected in the “total value” per share calculation, which looks at other factors such as cash distributions.

“...the strong recent performance of defense industry stocks... is built on non-sustainable factors...”

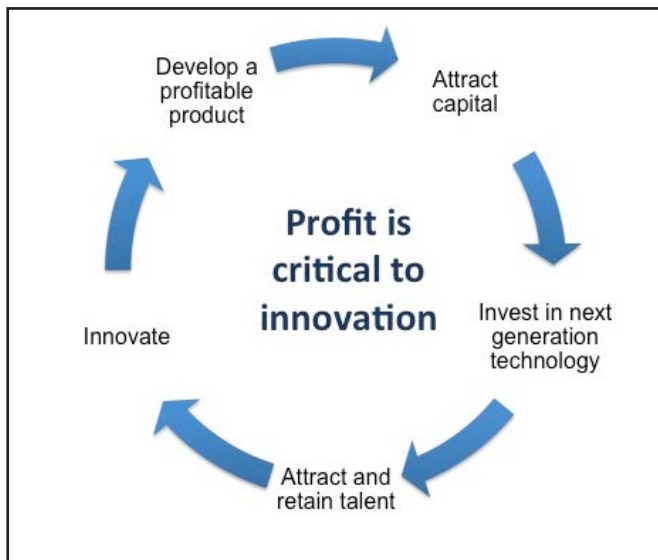
In summary, one can see that the strong recent performance of defense industry stocks (again, exempting services companies, for which the dynamics of cost reduction have a very different impact), is built on non-sustainable factors: cost reductions within a fixed price contracting environment, decreasing the outstanding share count, and increasing cash dividends.



Understanding the Role of Profit in Innovation

Because DoD personnel lack an adequate understanding of business models and investment drivers, they are also unable to understand the role profit plays in industry's ability to invest in innovation for the Department of Defense. There is a strong perception on the part of industry that the DoD is against profit. As noted in the discussion of unintended consequences, DoD contracting personnel have made an effort to decrease industry fee on contracts.

The term "profit" is not the same as "fee" on a contract. Fee is a contributor to profit, but a company must deduct a number of costs from its aggregate earned fees before arriving at profit. Some of the costs that must be deducted are unallowable costs, the cost of capital (e.g., interest on debt), and self-funded R&D.



Profit is the lifeblood of the capitalist system. If companies do not have profit, everything else falls apart. This point appears to be misunderstood by the government, which sees profit as something to be minimized. The Department's focus should be on the total price it pays for a product or service, not on the profit component. Total price should be a function of value received.

If a company does not earn what investors consider an appropriate profit, it will not be able to attract capital. Without adequate capital, a company will not be able to invest

in next generation R&D and product development and will have a harder time attracting and retaining talent.

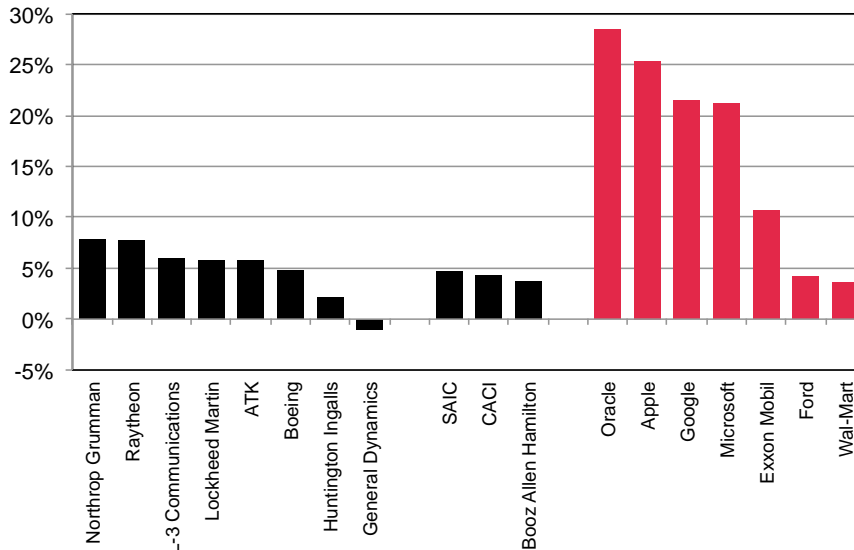
There is a perception within the government that the companies in the defense industry earn excessive profit. The charts in Figures 14, 15, and 16 are included to put defense industry profit in context. What is appropriate profit is different depending on the type of contract, the nature of work being performed, and the risk that industry assumes. For example, in simplistic terms, fixed price contracts carry a greater deal of risk than cost-plus contracts; the fee component on such contracts should be higher. The point of the charts below is that defense industry profits are not high relative to other industries – in part because the risks defense companies assume are lower than those borne by companies in other industries.



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Defense industry generates very low margins on sales

What is the Profit Margin on Goods and Services Delivered to Customers?
Net Profit / Revenues

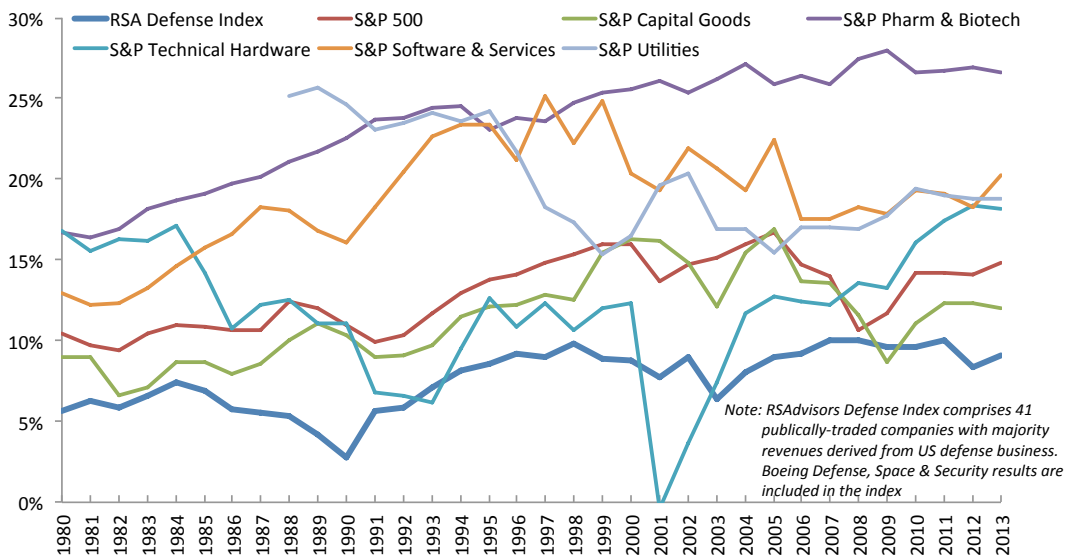


Source: Fidelity data for TTM through April 2013

Figure 14 - Profit margin comparison. (source: Strategy&/PWC)

Industry Average Operating Margin 1980-2013, weighted by revenue

© 2013 - Pierre Chao and Renaissance Strategic Advisors



Note: RSAAdvisors Defense Index comprises 41 publically-traded companies with majority revenues derived from US defense business. Boeing Defense, Space & Security results are included in the index

Sources: CapitalIQ, FactSet, S&P Compustat, Energy Information Administration, Company Reports, CSIS Defense-Industrial Initiatives Group, RSAAdvisors analysis

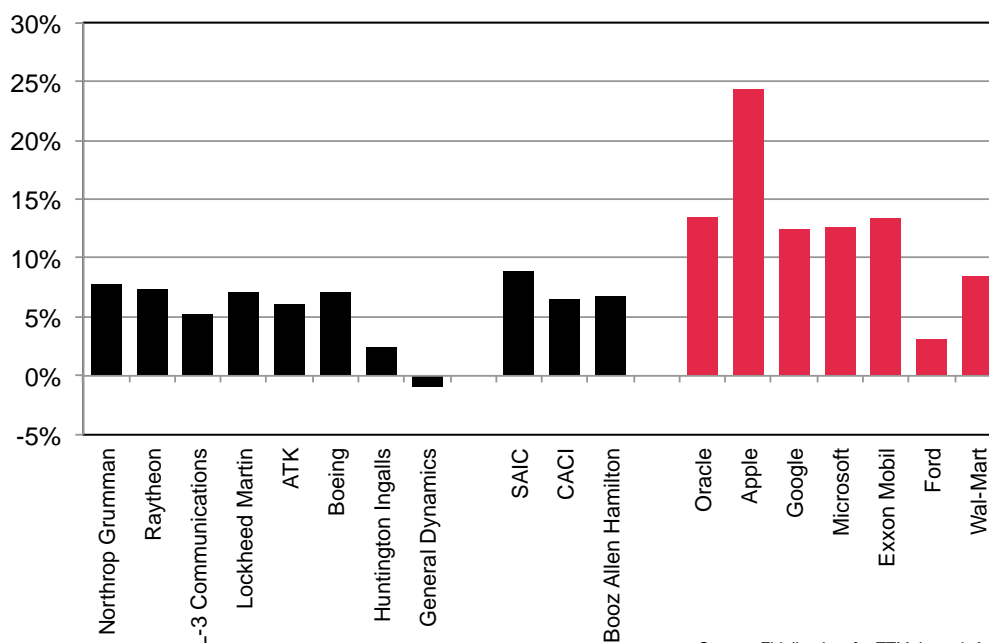
Figure 15 - Compared to other markets, Defense industry has the lowest returns. (source: Pierre Chao and Renaissance Strategic Advisors)



Defense industry return on total assets is also low

What is the Profit Earned on Assets Deployed in the Business?

Net Profit / Total Assets



Source: Fidelity data for TTM through April 2013

Figure 16 - Return on asset comparison. (source: Strategy&/PWC)

Whether profit is too high, too low, or “about right” should not be the primary focus of government contracting officers. Rather, if DoD seeks to attract commercial companies that operate on a different business model (i.e., that includes self-funded R&D which must then be recovered via product pricing), then DoD must expand its view as to what constitutes acceptable profit. As noted above, the government should be focused on value received, and the total price it pays for that value. Fee (and therefore profit) is a component of the total price, and relative to other components, it is a relatively small percentage. Yet adequate profit is critical to industry, for which it serves as a magnet for both capital and talent. If DoD seeks to retain the innovative companies within its Defense Industrial Base, and seeks to attract new commercial suppliers, then the profit that can be earned by doing business with DoD must be sufficient to attract industry.

Profit also must be calibrated for risk. When there is low risk, there is generally low profit; higher risk warrants higher profit. If this calculus gets out of sync, both industry and capital markets



will react. Working in the defense industry has been considered a low-risk business due to the certainty of the markets, the forward visibility, the lack of bad receivables, and minimal investment requirements. From industry's perspective, the perceived risk of doing business with the DoD – while still relatively less than in other industries – is nevertheless increasing due largely to the recent uncertainties in doing business with the government (i.e., sequestration, government shut-down threats, and overall budget uncertainty).

There are two key “takeaways” from this discussion: first, that the perceived risks of doing business with DoD are increasing; and second, that if DoD seeks to attract non-Defense Industrial Base companies to become DoD suppliers, then DoD attitudes towards profit will have to change in order to accommodate the commercial business models of non-government contractors.

The “De-investment” by the Defense Industry

The net effect of all of these factors is highlighted in Figure 17. The unfortunate conclusion is the we are witnessing the beginning of a net de-investment by the defense industry.

“...we are witnessing the beginning of a net de-investment by the defense industry.”

Looking at trends since 1990, R&D is flat to down, and capital investment is flat to down. Over the last ten years, mergers and acquisitions activity is down. Debt service needs are down due to low interest rates and the deleveraging of the industry. The largest use of cash resources has been to fund stock repurchases and increased dividend payouts. Capital is being taken out of the defense industry and being allocated to other industries where it can make a more attractive return, or is being returned to shareholders.



Defense Business Board

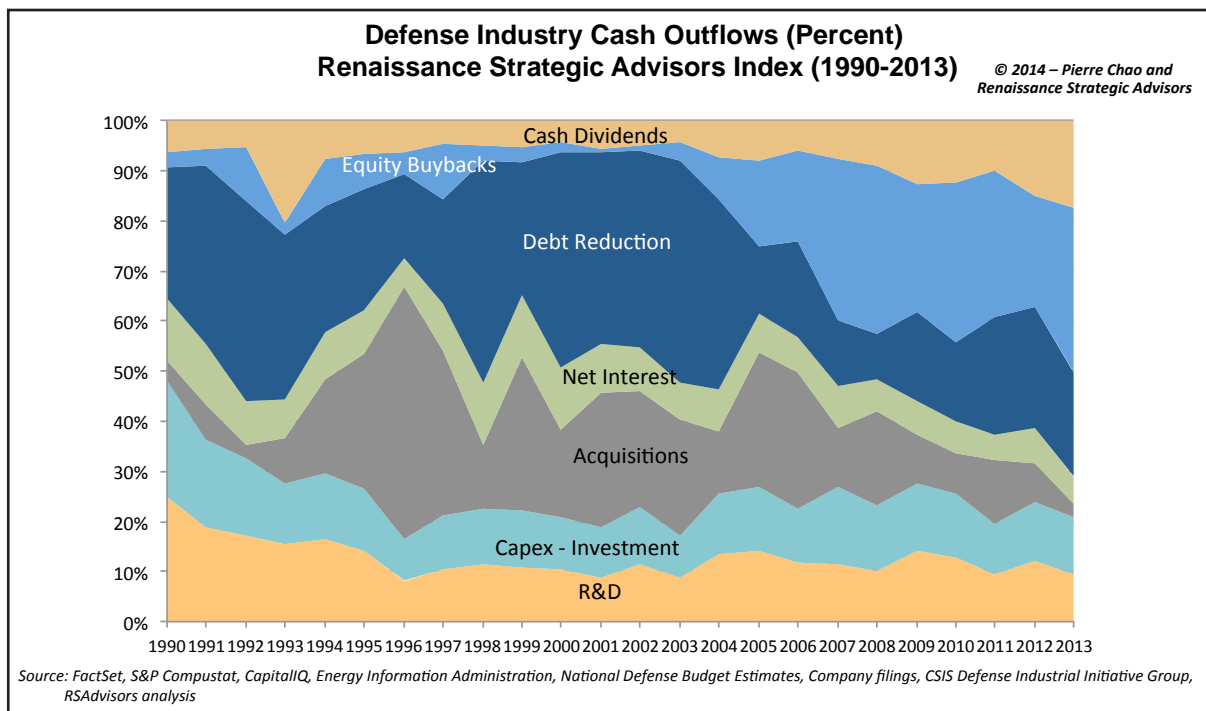


Figure 17 - Allocation of capital in the Defense Industrial Base.
 (source: Pierre Chao and Renaissance Strategic Advisors)

Wall Street is beginning to look at the defense industry as a source of cash, and not as a source of growth or innovation (Figure 18). Overall, the market value of the defense industry is not particularly high. The entire industry is worth the same as Walmart, or about one half of Apple (Figure 19).

“Wall Street is beginning to look at the defense industry as a source of cash, and not as a source of growth or innovation.”

Today, investor focus is on cash distribution rather than growth

Defense Company Investor Strategies

	Defense Companies					Other Industries	
	BA	NOC	GD	RTN	LMT	Utilities	Tobacco
Dividend Yield	2.5%	3.3%	3%	3.4%	4.4%	3.8%	3.7%
Payout Ratio	30%	26%	21%	31%	44%	60%	71%
5 Year Dividend Growth Rate	6%	11%	10%	13%	21%	0.6%	-7%
Share Repurchase (2009 – 2011)	\$3B	\$4.5B	\$3B	\$4B	\$7B		

Source: Strategy&PWC analysis using data reported in annual 10-K filings and equity investor analysis

Figure 18 - Investor focus is now on cash payout. (BA = Boeing; NOC = Northrop Grumman; GD = General Dynamics; RTN = Raytheon; LMT = Lockheed Martin) (source: Strategy&PWC)



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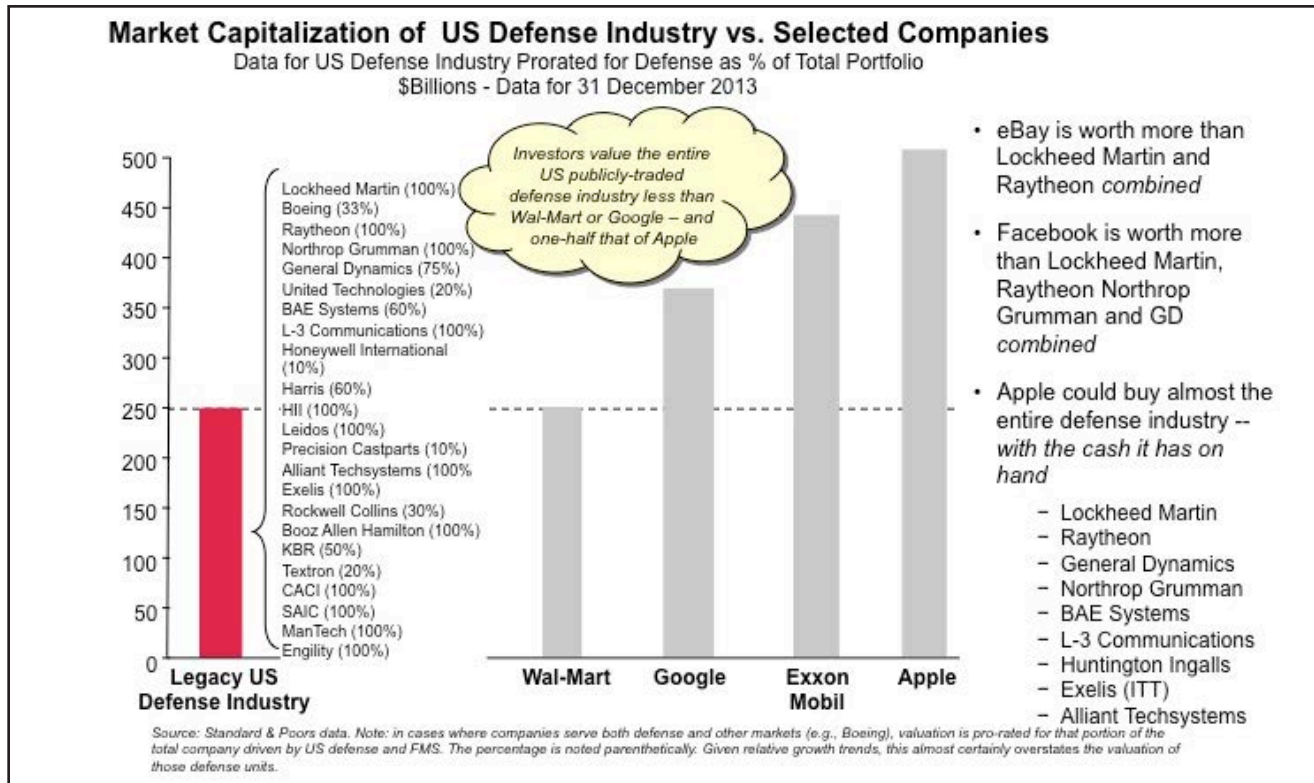


Figure 19 – Investors are now looking beyond the defense industry. (source: Strategy&/PWC)

TRADITIONAL VERSUS COMMERCIAL BUSINESS MODELS

As noted, there are two different business models at work. The traditional government contractor, including members of the Defense Industrial Base, has adapted to the traditional FAR Part 15 business model, the characteristics of which are summarized on the left side of Figure 20. This model requires experts in government contracting, cost accounting, bid and proposal development, legal counsel, and familiarity with all pertinent parts of the Federal Acquisition Regulations. For working within this model, companies are rewarded with relatively low investment requirements, and therefore benefit from relatively high return on investment. (Exception: to the extent that acquisitions are a meaningful part of a company’s strategy, the returns on investment tend to be much lower).

This traditional Defense Industrial Base business model relies on DoD-directed or approved R&D (via CR&D or IR&D) that is wrapped into rates charged back to the government. Therefore, one should not expect to see meaningful “break-through” or disruptive innovation developed within the DIB.



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Commercial contracting models are fundamentally different, as highlighted on the right side of the Figure 20. Commercial models are based on what a product or service is worth, or how it is valued, rather than what it costs. R&D tends to be self-funded, with return on investment a key component of how commercial firms price their product. Return on R&D investments must come through enhanced profit margin, as they do not bill the customer for the R&D as is typically done within the traditional government model. Accordingly, the higher risks borne in the commercial model earn a higher return – assuming the product or results of the R&D are successful in the marketplace.

To attract a broader base of suppliers and to open itself to innovation that is the result of technical advancements in the commercial marketplace, the Department will have to adapt more “commercial-like” contracting models. As noted above, traditional FAR Part 15-based contracting will not be acceptable to commercial companies that do not do business with DoD. For the most part, these companies are not willing to change their business, operating, and cost models to do business with DoD. To attract those companies, DoD will have to make greater use of alternative contracting models: FAR Part 12 (commercial and “commercial of a type” procurements), Other Transaction Authorities, and other innovative approaches.

Traditional procurement versus commercial contracting

<ul style="list-style-type: none">▪ <u>Model characteristics</u><ul style="list-style-type: none">– Cost-based– Government funds IR&D; industry role: resource allocation– Often, not performance-based– Lower risk, lower profit vs. other industries▪ <u>Government engagement</u><ul style="list-style-type: none">– Traditional procurement understood– CAS applies since cost is the base– IP rules favor government	<ul style="list-style-type: none">▪ <u>Model characteristics</u><ul style="list-style-type: none">– Market value-based– R&D self-funded; recovered in price of product, if successful– Performance-based– Higher risk, higher profit; industry assumes innovation and market risks▪ <u>Government engagement</u><ul style="list-style-type: none">– Traditional procurement, CAS do not work– FAR Part 12 and OTA work– IP rules must favor industry
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Figure 20 - Characteristics of traditional FAR part 15 (left) and commercial contracting (right).



Defense Business Board

In the government cost-based environment, the traditional procurement method and CAS is understood. Intellectual Property (IP) rules favor government under the rationale that government is providing the R&D funds. As noted previously, this government-paid-for R&D does not represent risk capital investment by industry. Industry's role with regard to IR&D is one of resource allocation, not investment.

In the commercial sector, traditional DoD procurement methods, CAS, and associated audit requirements are not used because companies do not have the infrastructure to support such models (instead they are compliant with Generally Accepted Accounting Principles (GAAP)). FAR Part 12 and Other Transaction Authorities are models that align with commercial companies' operating models, and are models that do work. IP rules in this model must reflect the funding source and risks assumed by industry.

The Department of Defense culture orients around process, budgets, obligations, and people, while the commercial world is more focused on speed, profit, and competitive advantage: what's "best for now" and "good enough" rather than the "exquisite" or perfect solution. Failing to understand and address these fundamental differences between cost-based and value-based models will pose an insurmountable barrier to attracting potentially innovative new commercial suppliers to the DoD.



Other Findings

- **Acquisition process**
 - Performs exactly as designed: slow, careful, risk-averse, “fair”
 - Problem: 7-10 year platform cycle vs. 18 month Moore’s Law technology cycle
 - Cannot accommodate agile, “best for now” or “good enough” standards
- **Workforce training**
 - Development curriculum for DoD acquisition workforce is inadequate
 - Need training on business models, practices, risk management
 - Need training on market research, systems engineering, and program management
 - Curriculum trains for cost analysis rather than how to make value judgments
 - Lowest cost selections seen as best defense against potential protests
- **Confused messaging**
 - DoD viewed as against profit, against industry and against commercial procurement
 - DoD viewed as not encouraging or open to innovation that it does not direct
 - DoD viewed as not understanding the new realities of the marketplace

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Figure 21 - Other Task Group findings included issues with the speed of the acquisition process, workforce training, and confused messaging to industry.

ADDITIONAL BARRIERS TO ACQUISITION

Acquisition Process

The traditional DoD acquisition process performs as expected and as it was designed: it is slow, careful, risk-averse, and tries to create a “fair” level playing field among competitors. It was also designed for complex, integrated platforms. The problem is that this seven to ten year acquisition cycle is incompatible with modern technology cycles that range from a few months to a couple of years. The term “Moore’s Law” (named after Intel founder, Gordon Moore) has come to mean the doubling of computing capability every eighteen months to two years. With the technology lead



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now residing in the commercial marketplace in critical areas of electronics, computing resources, communication tools, software, and cyber and data analytic tools, there is a fundamental incompatibility with seven to ten year acquisition cycles. Cutting edge commercial items cannot be procured in this traditional manner; to do so puts the DoD, by definition, at least half a decade behind what competitors might access. Innovative new capabilities will be inaccessible.

Part of addressing this misalignment will be to change the goals of what is procured, and to adopt more of the commercial “best for now” or “good enough” standards. If the Department tries to force its traditional DoD method of procurement on commercial companies, it will lose them. Worse still, it will not know what it is missing since they will not be attracted to doing business with the DoD in the first place.

The Task Group received comments from the military side of the Department that have underscored the fact that the procurement process today is incompatible with the “pace of fight,” the realities of warfare and military readiness, much less the pace of technological change. There have been several niche offices and special authorities stood up within the Services, Office of the Secretary of Defense, and the Combatant Commands (e.g., US Special Operations Command’s Special Operations Research, Development, and Acquisition Center, US Army’s Rapid Equipping Force, USD(AT&L)’s Rapid Innovation Fund, etc.) to attempt to speed up the acquisition process within the traditional model. Nevertheless, there is a lack of experience and accountability in acquisition positions as job rotations are often shorter than procurement lifecycles.

“...DoD... needs to adapt to the realities and pace of today’s commercial market.”

The bottom line is that the Department has to stop trying to force fit all of its acquisitions into a system designed for a different time and a different fiscal environment. It is the DoD that needs to adapt to the realities and pace of today’s commercial market.

Workforce Training

Workforce training is another area that the Task Group found to be inadequate, as noted in interviews and made apparent by available curriculum. The curriculum put forward by the Defense Acquisition University (DAU) is insufficient to meet the needs of the Department in promoting procurement practices that encourage innovation. Examples of key deficiencies include the lack of training on business models, business practices, and risk management as well as a paucity of courses focused on FAR Part 12, Part 10, and procurement rules other than FAR Part 15. In order to address this problem, the Navy, for example, has established its own courses to supplement DAU



curriculum.

A second example of training deficiency is the lack of training on market research (i.e., FAR Part 10), which is foundational to the acquisition workforce's ability to make informed "buy" decisions. Contracting and program personnel cannot make "best value" judgments or mission specific judgments if they are not trained to perform market research. Therefore, it should be no surprise that acquisition and contracting personnel fall back on cost-based judgments for contracting decisions. One of the distinguishing characteristics of In-Q-Tel is its ability to undertake commercial market research, which in turn enables it to contract with confidence with the commercial sector on behalf of the Intelligence Community. In-Q-Tel is a model admired for its effectiveness in bringing innovative new commercial technologies into the government. Systems engineering and program management training and expertise also are needed. The fundamental problem with the current DAU curriculum is that it trains for cost analysis and how to make cost-based rather than value judgments.

Confused Messaging

The Task Group's final finding is that the Department's messaging to industry is confused at best. Whether intended or not, what is being heard by industry, both inside and outside of the Defense Industrial Base, is that the Department is against profit, against industry and commercial procurement, and does not encourage and is not open to innovation that it has not directed. Industry views DoD as being an uninformed customer that is unaware of the current marketplace environment.



DoD has achieved near-term cost reductions... but at what long-term cost?

- Commercial players are innovating elsewhere, de-emphasizing or exiting DoD market
- Investment capital looking elsewhere to invest; views DIB more as a source of cash than a source of innovation
- Some industry segments (“best-value” services) now in survival mode
- Talent is exiting
 - Employees are paying the biggest cost
 - Impact: “hollowing out” of DIB capabilities
 - Talent competition is with non-DoD markets: Silicon Valley, Wall St.

Without talent and investment there will be little innovation

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Figure 22 – DoD has achieved near-term cost reductions at long-term costs.



The Challenge

- Eliminate barriers to innovation; replace with clear incentives
 - Current IP rules crush industry upside potential
 - DoD process in the name of “fairness” destroys competitive advantage that should result from investment in innovation
 - Capital is neutral, not patriotic; need to attract capital on its terms
- Financial returns currently possible by selling to DoD are inadequate to attract innovation investment capital
 - Sustainable returns: decreasing
 - Perceived risk: increasing

DoD fundamental misunderstanding of the economics of profit has become a huge obstacle to innovation

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Figure 23 – The challenge that DoD must now address.



RAMIFICATIONS OF COST REDUCTION ACTIONS AND THE CHALLENGE FOR INNOVATION

The immediate benefits of budget reduction actions implemented over the last few years have been realized for the Department: it is paying less for products and services now than in the past and is able to take advantage of supplier market overcapacity. These lower costs have resulted from industry actions to reduce their own costs – steps that included decreasing (and in many cases eliminating) R&D expenditures, reducing and eliminating employee training and development investments, lowering employee benefits and salaries, and other such measures that directly impact a company’s ability to attract top talent and to train and retain its employee base. Although the Department of Defense has achieved near-term costs reductions, the question is: at what long-term cost?

The traditional DoD acquisition model is one that is long-standing and which works for the procurement of large scale, complex, and integrated programs for which it was designed. It is also a model built on the implicit assumption that most of the cutting edge technologies and capabilities that the DoD would need can be sourced from its traditional supplier base. Today, the technology lead in many critical areas has moved from the Defense Industrial Base to commercial markets. Further, the speed of technological change has increased to the point that the most current technologies simply cannot be procured under the traditional seven to ten year DoD acquisition cycle.

Times have changed. The DoD must now adapt to the new circumstances and market environment, or relinquish its position of attracting top talent and working with cutting edge new technologies and capabilities.

Today we are witnessing defense industry “de-investment” as the leading defense companies focus more on returning capital to shareholders by way of increasing dividend payouts and repurchasing stock. R&D and capital investment expenditures are down, and merger and acquisition attention is focused on moving into adjacent non-U.S. defense markets like energy, health care, and international markets. The U.S. defense market is being viewed as a source of cash flow, and not a market attracting investment capital for innovation.

“The DoD must now adapt to the new circumstances and market environment, or relinquish its position of attracting top talent...”

Commercial companies that reside outside the defense industry, that by definition do not need the defense market, are choosing to innovate elsewhere – into markets that will provide them with a



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more attractive return on investment on a risk-adjusted basis. Where companies participate in both defense and commercial markets, they are de-emphasizing defense or exiting the market entirely.

Within the Defense Industrial Base, many of the “best value” services segments are in a “near-survival” mode or starting to disappear. Lowest cost and LPTA contracting have become the norm – despite claims to the contrary at policy levels in the Department.

Finally, and arguably the most unsettling ramification of the points mentioned above, is that talent is exiting the Defense Industrial Base. It is not that key talent is moving from the DoD to the major primes, or is moving between Defense Industrial Base contractors; it is that talent is exiting the industry altogether. Top talent is moving from the defense community to Silicon Valley, to Wall Street and to other commercial markets. We are beginning to see the signs of the “hollowing out” of the Defense Industrial Base. With top talent and capital exiting the defense industry, it is only a matter of time before innovation follows suit.

“With top talent and capital exiting the defense industry, it is only a matter of time before innovation follows suit.”

The challenge for the Department is how it can eliminate the barriers to innovation and replace them with clear incentives – incentives that will attract both talent and capital investment.

For companies already serving the DoD, large and small, whose business models are to be part of the Defense Industrial Base, they will continue to work within the existing rules, and will build business models as required to compete as effectively as possible. The DoD should expect, however, that other than “top-down” or directed R&D (i.e., contracted R&D or government funded IR&D), innovation will be limited. From the perspective of commercial companies that do not serve, or only partially serve, the DoD, the financial returns currently possible by selling to the Department via traditional FAR Part 15 procurements are inadequate to attract capital. The FAR Part 15 orientation around “cost” rather than “value” does not accommodate or understand different commercial investment, cost, or operating models. The broader perception that DoD is anti-profit only exacerbates this problem.

In summary, changes in the Department’s behavior to address short-term pressures (budget and declining expertise of workforce) are leading to structural changes in industrial operating models (greater commoditization; less expertise), which in turn is leading to structural changes in the Defense Industrial Base that favor modest growth, maximum cash flow, and little innovation. For the DoD market to once again become a market for innovation, these structural elements must be addressed.



RECOMMENDATIONS

Recommendations Overview

- **Overarching objectives**
 - Focus on desired outputs rather than antiquated process
 - Rebalance roles of program and contracting offices; retrain for better decision-making
 - Address unintended consequences
 - Open up a largely closed, vertically integrated system

- **Recommendations**
 1. Establish FAR Part 12 as default acquisition method for non-platform procurements
 2. Require adoption of modular approach to new mission-essential platforms
 3. Rebalance policies on Intellectual Property
 4. Remedy unintended consequences of budget reduction actions
 5. Provide clear and consistent senior-level messaging of DoD goals and policies
 6. Systemize and mandate DoD workforce education as condition for promotion
 7. Simplify DoD internal processes and policies: ensure consistent long-term leadership
 8. Re-examine industry structure and incentives from standpoint of future DoD needs

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Figure 24 - Recommendations overview slide.

The Task Group developed eight overarching recommendations that, if implemented, will strengthen, attract, and retain talent, capital, and innovative new suppliers.

The framework of the recommendations is as follows:

1. Focus on the desired outputs, or results, rather than on a process that no longer meets the needs of the Department;



2. Improve and rebalance contracting decision-making by retraining program and contracting offices;
3. Address unintended consequences arising from budget reduction actions; and,
4. Open up what is a closed, vertically integrated system – from the perspective of both program structure and the supplier base – by increasing competition and therefore choice.

To see greater innovation emerge from its supplier base, DoD first must change its acquisition and contracting processes. DoD must prepare the soil and plant the seeds before it can harvest the results of greater innovation.

1. Establish FAR Part 12 as the default acquisition method for non-platform procurements

- **What:**
 - Establish FAR Part 12 as default acquisition method
 - Reemphasize FAR Part 10, including preference for “good enough” over “exquisite”
 - Use traditional acquisition methods only when FAR Part 12 cannot apply
- **How**
 - SecDef to issue memorandum directing change
 - DepSecDef to follow with implementation specifics
 - DepSecDef to establish commercial advocate “ombudsman” within DoD
 - USD(AT&L) to drive execution
 - Expand rather than restrict definition of “of a type” and other stringent requirements
 - Require contracting officers to first seek commercial alternatives and certify actions taken
 - Require greater dialogue with industry pre-RFP in order to understand commercial options
 - Direct immediate training of acquisition personnel
- **Why**
 - Delivers clear statement: DoD invites commercial involvement; will engage on its terms
 - DoD acquisition process change is a necessary prerequisite
 - Begins to open what is otherwise a closed system
 - Changes the game

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Figure 25 - Recommendation 1 slide.



RECOMMENDATION 1:

ESTABLISH FAR PART 12 AS THE DEFAULT ACQUISITION METHOD FOR NON-PLATFORM PROCUREMENTS.

WHAT:

The Department of Defense should establish FAR Part 12 as the default acquisition method for non-platform procurements. FAR Part 15 should be the alternative acquisition method only when FAR Part 12 cannot be applied. Accompanying this action should be a reemphasis of the requirement to perform market research (as outlined in FAR Part 10), and include the preference for “good enough” or “good for now” over the perfect or “exquisite” solution.

HOW:

- The Secretary of Defense (SECDEF) issues a memorandum directing this change;
- The DEPSECDEF follows with a memorandum outlining appropriate implementation specifics and directives for Defense Contract Management Agency, USD(AT&L), DoD Office of the General Counsel, and others;
- USD(AT&L) oversees and drives implementation of change, focusing on the following key elements:
 - ✓ *Expand, rather than restrict, definitions of “commercial of a type;”*
 - ✓ *Clarify standards for commercial acquisition of non-commodity items; reduce stringent requirements for application of Part 12 rules in order to open the aperture more widely than at present;*
 - ✓ *Require contracting officers to first seek commercial alternatives and to certify actions taken;*
 - ✓ *Require greater dialogue with industry before issuing an RFP in order to understand commercial options and alternatives; and*
 - ✓ *Direct immediate training of acquisition personnel.*
- Establish a commercial, or innovation, ombudsman within DoD, with the following authorities and responsibilities:
 - ✓ *Serve as a single point of contact for commercial companies seeking bureaucratic relief;*
 - ✓ *Resolve disputes, authorize contract awards, cut through the institutional “red tape”;*
 - ✓ *Act as an advocate for commercial solutions, and help promote commercial best practices to procurement officials within DoD and Services;*



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- ✓ *Be able to qualify suppliers up front and negate the need for duplicative audits and reviews; and,*
- ✓ *Play an advisory role similar to that played by In-Q-Tel, both within DoD (e.g., performing market research) and industry.*

WHY:

These actions send a clear statement to industry that the Department invites commercial industry involvement and will engage it on commercial terms; the effect will change industry's perception that DoD is against commercial procurement. From a statutory perspective, commercial or non-developmental acquisition is already the preferred acquisition policy and establishing FAR Part 12 as the default system would make this true in practice. The greater emphasis on market research will be essential to support buying decisions in both commercial and traditional acquisitions. These actions will help open what is otherwise a closed system.

Making FAR Part 12 the default acquisition method may appear to be bold step, but it has precedent. It is similar to the step taken in June 1994 by then Secretary of Defense William Perry to open the defense market by dropping the requirement that all acquisitions meet military specifications ("MilSpec"), and instead accept commercial specifications where possible (see Appendix D for Perry Memo). Approximately half of a decade later, then USD(AT&L), the Hon. Jacques Gansler, issued a memorandum providing clarification on commercial item acquisitions (see Appendix D for memo) and followed with a "Commercial Item Handbook" that provided specific and clarifying guidance to DoD acquisition personnel.

The recommendation to expand rather than restrict the definition of commercial "of a type" procurement is made for two reasons: first, there is confusion within industry as to what it means, or will mean; and second, DoD has sent conflicting messages suggesting that it seeks to eliminate or restrict the definition of "of a type" (see Appendix D, for definition of commercial item and features of commercial contracting).

The charts below illustrate the confusion noted above. Figure 26 ("DoD's commercial contracting guidance") shows the lack of clarity around what constitutes a commercial item, and indicates that DoD will be changing the definition. Figure 27 ("Proposed restrictions to statutory commercial item definition") reflects DoD efforts to eliminate "of a type" altogether – a move that the Task Group believes is in the wrong direction and contrary to goals for innovation.



DoD's commercial contracting guidance

DPAP
Defense Procurement and
Acquisition Policy

DP
Defense Pricing

DPAP > Contingency Contracting > Defense Contingency Contracting Handbook

GO

DPAP / DP Home

DPAP Operations

Defense Acquisition Regulations System

Contract Policy and International Contracting

Contract Policy

International Contracting

Contingency Contracting

Commercial Contracts

Commercial contracting - Refers to the procedures used to purchase commercial items. A commercial item is any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and has been (i) sold, leased, or licensed to the general public, or (ii) offered for sale, lease, or license to the general public (Source: [Acquipedia](#)). Note that the definition of what constitutes a commercial item may be changing in the near future.

[Checklist](#)

[Commercial Item Checklist \(USMC\)](#)

[Training](#)

Source: http://www.acq.osd.mil/dpap/ccap/cc/jcchb/HTML/Topical/com_contracts.html

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Figure 26 - DoD's commercial contracting guidance.



Proposed restrictions to statutory commercial item definition

Department of Defense Panel on Contracting Integrity

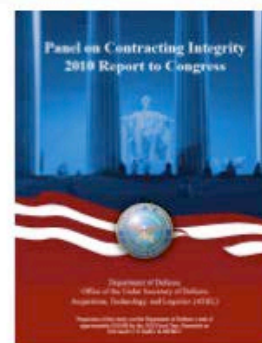
2009 CARRYOVER Action 4a: Establish a working group to assess the need for establishing thresholds for higher-level approval of commercial item determinations based on “of a type” and develop recommendations. This is an interim measure pending a legislative change proposal.

Discussion

SC4 continues to recommend a legislative proposal be submitted for the FY2012 Defense Authorization Bill to eliminate “of a type” and “offered for sale” from the definition of commercial item to eliminate this contract vulnerability. The Department’s 2012 Legislative Proposal process is on-going at this time.

Status

This action is on-going.



Source: Department of Defense, Under Secretary for Acquisition, Technology and Logistics, Panel on Contracting Integrity 2010 Report to Congress, January 2011, p 22.

Figure 27 - Proposed restrictions to the statutory commercial item definition.

For sure, there are people within DoD who point out that DoD already procures a significant amount of products and services under FAR Part 12. This claim may be quantitatively correct, but it misses the entire point. In Fiscal Year 2013, DoD procured approximately \$56B of the total \$308B procurements under FAR Part 12. While \$56B is a large number, and represents 18% of total procurements, it is misleading as evidence of procurement that encourages innovation. The vast majority of items purchased under FAR Part 12 are commodity or common supply items such as fuel, food, medication, management support services, mail delivery services, and household items. In 2013, DoD utilized FAR part 12 to acquire \$34.5 billion in goods, \$191 million in R&D, and \$21.7 billion in services. By comparison, DoD used other-than commercial (Part 15) for \$112.7 billion in goods, \$29.2 billion in R&D, and \$109 billion in services.⁵

5. Data from fpds.gov query for commercial item acquisition procedures codes “A” and “D” for Department of Defense in Fiscal Year 2013.



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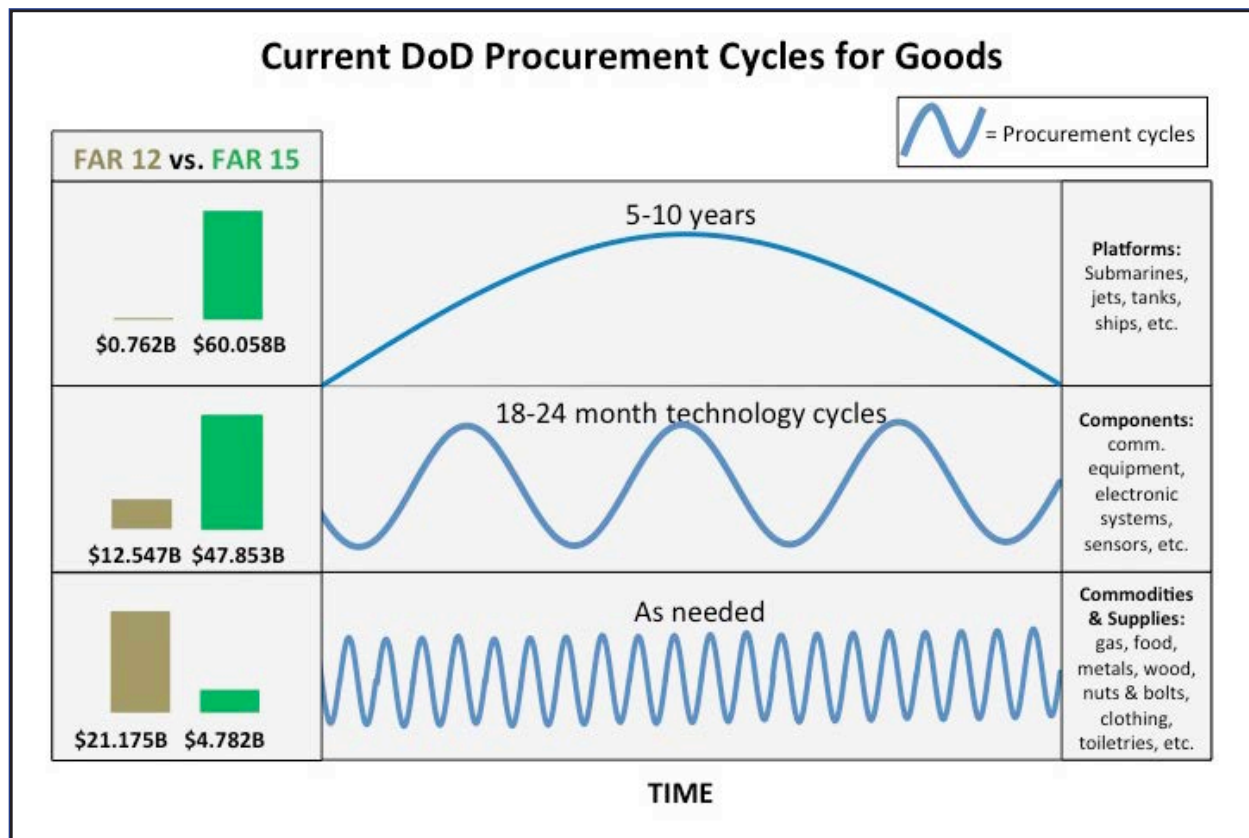


Figure 28 - Notional chart depicting the DoD spending breakdowns (left-side) on platforms, components, and commodities, and their corresponding procurement cycles.⁶

The Task Group recognizes that most of the platform acquisition will continue to be procured under FAR Part 15. The recommendation made herein is that FAR Part 12 be expanded beyond commodity items and that it is applied to mission-essential items that can be integrated into larger systems in order to support the warfighter on a timelier basis. Stated another way, the focus should not be on commodity items, but on expanding the application of “of a type” in order to open the acquisition aperture as wide as possible into the domains of software, electronics, cyber and data analytic offerings, and services.

6. Source of data is Federal Procurement Data System (FPDS). Data for FAR Part 12 categorized under Commercial Item Acquisition Procedure Code “A,” FAR Part 15 is “D”. Spending is for action obligation amounts in FY2013 for Product or Service Code (PSC) categories 1005-9999. Categorization of goods into “Platforms,” “Components,” and “Commodities & Supplies” is judgment-based, based off of definitions found in the GSA’s PSC Manual (Aug 2011).



2. Require adoption of modular approach to new mission-essential platforms

- What
 - Require platform open architecture; separate platform from components
 - Encourage “plug and play” modularity of key components
 - Separate component “buy” decisions from prime contractor
- How
 - USD(AT&L) to require all major programs be designed in advance for modularity
 - USD(AT&L) to require commercial assessment to seek ‘good enough’ capabilities
- Why
 - Encourages innovation at all levels (platforms, components, subsystems)
 - Fully integrated, “hard-wired” platforms stop component innovation once procured
 - Recognizes the reality of Moore’s Law and technology innovation cycles
 - De-risks major programs; able to swap-out what does not perform
 - Reduces cost and personnel redundancy, particularly in forward-deployed areas

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Figure 29 - Recommendation 2 slide.

RECOMMENDATION 2: REQUIRE ADOPTION OF MODULAR APPROACH TO NEW MISSION-ESSENTIAL PLATFORMS

What:

The Department should require that complex platforms are designed using an open architecture, and that critical components are separable and independent from the platforms. A greater use of “plug and play” modularity of key components (e.g., software, sensors, analytics, communications, and electronics) should be embraced. The Department should separate the component “buy”



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decision from prime contractors, thereby assuring a more open supply chain and ultimately, more competition and choice.

How:

- USD(AT&L) to require that all major programs are designed, in advance, for modularity and using an open architecture approach.
- USD(AT&L) to require contracting officers to undertake a commercial assessment of available capabilities in order to seek a “good enough” solution; contracting officer to be required to explain why commercial acquisitions are not possible in cases where customized procurement is recommended.

Why:

Moving to open architecture and modularity encourages innovation at all levels (e.g., platform, system, subsystem) and allows the Department to buy component and system upgrades and next-generation components on cycles that match the more rapid technology development cycles. Failure to adopt this approach locks the Department into the longer acquisition cycles defined by the platform. It is not whether the technology exists, but whether the Department can procure, integrate, and deploy the technology quickly and effectively.

Open architecture also de-risks major programs: if component pieces can be updated or replaced as necessary, the entire platform is not put at risk. It also reduces costs and personnel redundancy, particularly in forward-deployed areas that will no longer need people deployed in theater who are the experts on the intricacies of a platform.

There are outstanding examples of this approach being practiced within the military today. The Navy has successfully used such an approach in the design of its Virginia-class submarines. This has allowed for an expanded use of commercial items, increased technology refreshment, and led to greater contracting with small businesses.

This recommendation supports the initiatives already underway by USD(AT&L), as evidenced by remarks from the Assistant Secretary of Defense for Acquisition and the publication of an open systems architecture guidebook in May 2013.^{7, 8}

7. <http://www.defense.gov/news/newsarticle.aspx?id=121103>

8. https://acc.dau.mil/adl/en-US/664093/file/73330/OSAGuidebook%20v%201_1%20final.pdf



3. Rebalance policies on Intellectual Property

- What
 - IP policy must allow for industry to gain full value from its IP
 - IP policy must protect industry IP for self-funded R&D
 - Rebalance government/industry IP rights on cost-shared R&D
- How
 - SecDef to mandate change
 - DepSecDef to instruct OSD General Counsel to develop language that can be presented to industry for comment; inform Congress of DoD actions; DepSecDef to require closure within 12 months
 - USD(AT&L) to clarify DoD goals to industry
- Why
 - Encourages industry to invest in new technologies relevant to DoD
 - Finding “win-win” space is in interest of all parties
 - Clarification of IP policy is essential and opens the door to future innovation

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Figure 30 - Recommendation 3 slide.

RECOMMENDATION 3: REBALANCE POLICIES ON INTELLECTUAL PROPERTY

What:

IP policy has been like a pendulum, swinging back and forth between pro-government and pro-industry positions. At present, the pendulum has swung too far to the pro-government side, and needs to move more to the middle. Equally important, there appears to be a great deal of confusion within the DoD and industry as to what and how IP policies are applied. Government and industry would benefit from greater clarity on this issue.



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Policies should be enacted clarifying that industry is entitled to gain full value from its IP and that industry owns its self-funded IP (SFR&D). A clearer understanding as to ownership and rights with regard to “mingled funds” R&D (i.e., R&D that has been developed using a mix of government reimbursed IR&D and industry self-funded R&D) should be established.

How:

- SECDEF to mandate review of IP ownership policies and to direct necessary policy changes in order to enable companies to retain rights to their own self-funded innovations when selling to the DoD.
- DEPSECDEF to instruct USD(AT&L) to develop language that can be presented to industry for comment. DEPSECDEF to require closure within 12 months of request.
- USD(AT&L) to clarify DoD goals and intent to industry: that IP developed by industry using funds that are non-CAS reimbursed will not be subject to government IP claims.

Why:

Current IP law for technical data allows the government “unlimited rights,” “government purpose rights,” or “technical rights” in contractor data, generally in circumstances where government funds are spent by industry in the development of IP, which is then used on offerings sold to the government. The government is then able to make the IP available through RFPs to all of industry in order to achieve what it considers a “fair” competition. This approach by the government is a huge disincentive for industry to develop new technology and capabilities for the DoD; companies receive no value for their innovation and, perhaps worse, they lose proprietary ownership of it as well.⁹

Where industry provides 100 percent of the funding for the development of new technologies and capabilities (SFR&D), policies should be clear that the IP owned and the rights governing its use reside with the private sector company that developed it. The government can (and should) negotiate use rights in the event of company bankruptcy or for other high national security reasons. Where the government provides 100 percent of the funding for the development of new technologies (CR&D and IR&D), the government should have much greater rights regarding the

⁹ For further reading on industry and small business concerns with DoD IP practices, see the House Armed Services Committee’s 2012 report “Challenges to Doing Business with the Department of Defense”: http://armedservices.house.gov/index.cfm/files/serve?File_id=f60b62cb-ce5d-44b7-a2aa-8b693487cd44



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use of such technology. As noted the innovation section of this report, neither CR&D nor IR&D represent industry risk capital investment, and therefore control of what is developed with these government funds should favor the government.

Confusion also rests in the area where both industry and the DoD contribute to the development of new technologies and capabilities. Here, an appropriate balance must be found if the DoD is to attract industry investment capital. If the government insists that it retains “walk-in” rights or the ability to make that technology available to anybody so there can be a “fair competition” even when industry invests 90 percent of the money and the government 10 percent, industry will not invest its capital.

To incentivize industry investment in products and offerings relevant to the Department, the Department must develop a new IP policy that protects industry for self-funded R&D and that allows for industry to gain full value for its IP investments. The companies of the Defense Industrial Base are already committed to DoD, but the outside innovation that the Department is trying to access, which resides outside the traditional supplier group, will not engage under the current rules. Clarification of IP policy is essential and opens the door to future innovation.

Finally, the DoD has expressed concern about being “held captive” by the private sector in cases when DoD has acquired products or services incorporating commercial IP. This concern can be addressed in the terms and conditions of the original contract with regard to upgrades, maintenance, and subsequent purchases.



4. Remedy unintended consequences of budget reduction actions

- What
 - Stop practices that now represent barriers to innovation
 - Replace “input-based-design” with “output-based-performance” requirements
- How
 - Eliminate LPTA and staff augmentation contracting other than for commodity services with minimal mission impact
 - Avoid fixed price incentive fee contracts where efficiency innovation is possible
 - Stop reverse auctions other than for commodity services that have no mission impact in the event of failure
 - Minimize IDIQ contracting for work that requires sustained industry expertise, and where rapid technological changes are occurring
 - Mandate that requirements are established around performance, not design
- Why
 - Arrests industry “race to the bottom”
 - Preserves quality in mission-essential areas
 - Addresses talent and experience loss and “hollowing out” of industry capability

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Figure 31 - Recommendation 4 slide.

RECOMMENDATION 4:

REMEDY UNINTENDED CONSEQUENCES OF BUDGET REDUCTION ACTIONS

What:

Stop practices that gained considerable traction during early stages of significant budget reductions but which now contribute to significant long-term costs, thereby reducing innovation and negatively impacting industry operating models. Replace “input-based” design contracting with “output-based” performance contracting.



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How:

- Eliminate LPTA and lowest cost, resume-based staff augmentation contracting other than for commodity services with minimal mission impact;
- Avoid fixed price incentive fee contracts (FPI) where efficiency innovation is possible;
- Stop reverse auctions other than for commodity services that have no mission impact;
- Minimize IDIQ contracting for “best value” work that requires sustained industry expertise and where rapid technology changes are occurring;
- Mandate that requirements are established around performance, not design.

Why:

LPTA and staff augmentation contracting serves an important function for work that can be interchangeable among contractors, where there is little or no institutional additional value, and therefore where cost considerations are paramount. As contracting approaches, they should be limited to work performed in areas of minimal mission impact. Reverse auction contracting (i.e., lowest cost) also should be limited only to the most non-essential commodity work where labor is entirely fungible. Similarly, IDIQ contracts should be used for relatively short-term tasks where innovation is not likely to make a meaningful difference. Using IDIQ contracts in areas where innovation and new technologies, capabilities, and approaches are desired is self-defeating, given that the outside innovator is not likely to have the IDIQ contract vehicle, and therefore will not be in a position to bid on task orders issued under the IDIQ contract.

Considerations between fixed price or fixed price incentive fee contracts may be a matter of degree. Where innovation – particularly around process efficiencies – can be achieved, industry benefits most under fixed price contracts where it retains 100 percent of the savings achieved, thereby increasing both margin and profitability. Under fixed price incentive fee contracts, those savings are shared with the government. Here a balance must be achieved (i.e., a fair sharing of the benefits) if the encouragement of process innovation is the goal. If the government requires a very high percentage of the gains, then industry has minimal incentive to invest to realize the benefits. Making fixed price incentive fee contracts work effectively requires that industry and the Department reach a reasonable “middle ground” as to the percentage of savings that are retained by industry versus returned to the government.

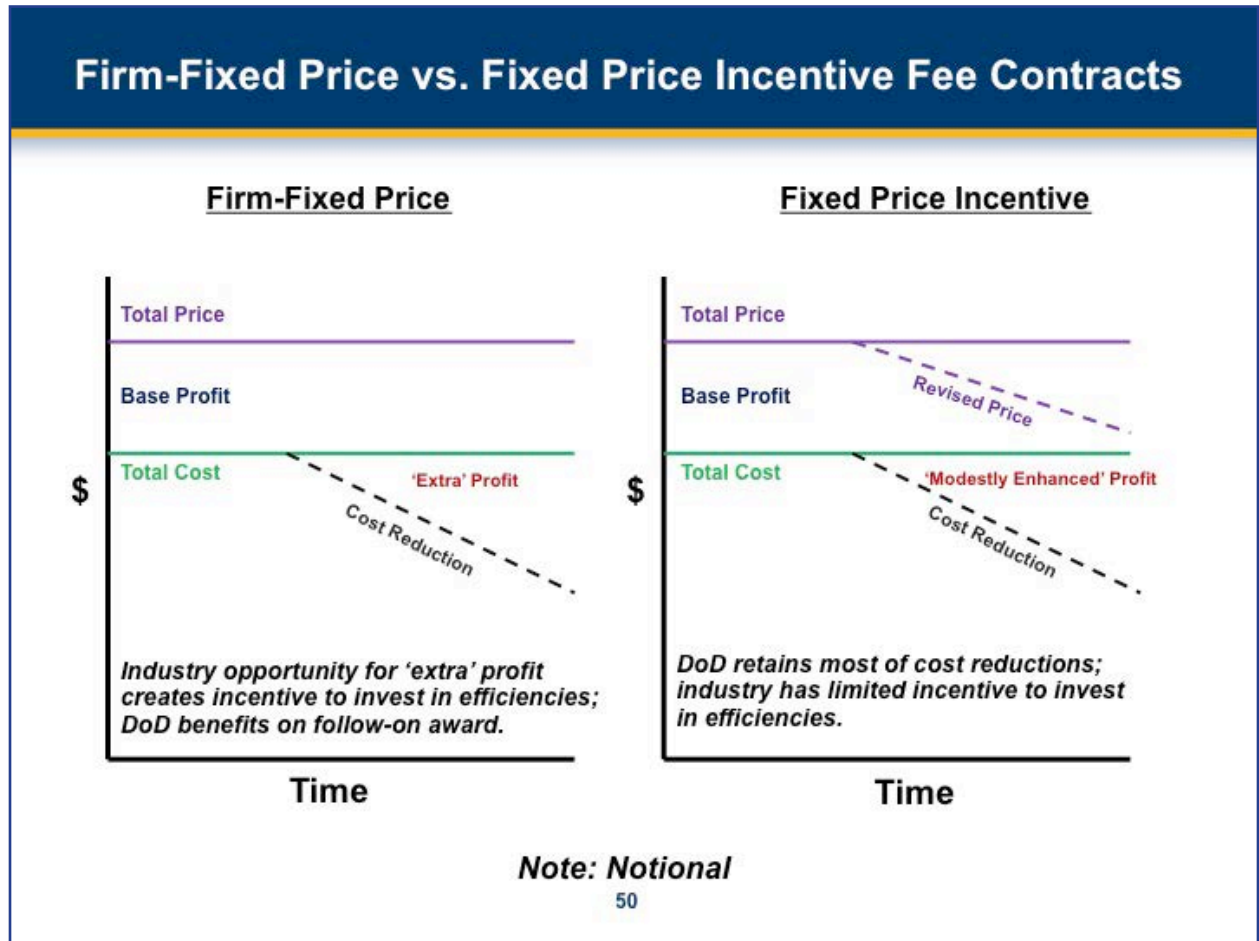


Figure 32 – Notional chart depicting firm-fixed price vs. fixed-price incentive fee contracts.

Note that the government benefits in either case given that under Truth In Negotiation Act (TINA) rules, industry must bid based on its true costs. To the extent industry is able to reduce costs under a fixed price or fixed price incentive fee contract, the government benefits from the lower cost base from which future contracts must be bid.

The need for contract requirements to be based on performance, or output criteria rather than design, or input based criteria, cannot be understated. Design-based requirements serve as a closed and locked door against innovation. They shut out new technologies, new ideas and approaches and simply shutdown any opportunities for innovation – of any kind. Design-based contracting assumes that the DoD knows not only what it wants, but how it wants it built or how it



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wants the services provided. It is like buying a washing machine only by telling the manufacturer how to design it, what bolts and materials to use, and what personnel to hire to make it. If design requirements focus on performance needs and the output desired, the door is open for the creativity of industry to figure out and deliver an innovative product or service, or to redesign a more effective business process.

Related to this point of moving from input to output requirement definitions is the need to rebalance the relationship of the program office and contracting office on acquisition evaluations and decisions. The best acquisitions are made when the two offices work together, where mission goals are not lost under the weight of cost analysis. Output or performance-based contracting will be difficult for the traditional cost analysis based contracting official given that judgments will have to be made on best value, how much risk is the government willing to assume, and the importance of greater capability versus a lower cost. These judgments are best made within the program offices, and then balanced by the cost considerations. The best decisions will be made by appropriate consideration of mission, value, and cost in combination.

The need to move to a more performance-based contracting approach is recognized in industry and the DoD. It is essential to rebuilding the “best value” rather than the lowest cost segments of the supplier market. The keys are clear messaging that this change is important and to align DoD training and personnel promotions to progress in this area. Addressing this challenge will go a long way to opening the doors to industry innovation and creativity.

In sum, addressing the unintended consequences of the budget reductions is essential to avoid an industry “race to the bottom,” focused almost exclusively on cost and not value, and the “hollowing out” of the industrial base. DoD is not served well – now or in the future – by quality reductions due to the need for industry to focus disproportionately on cost. The talent and experience needed in the DoD supplier base will simply exit the industry, and may not be replenished.



5. Provide clear and consistent senior-level messaging of DoD goals and policies

- What
 - Deliver clear and consistent messaging from senior DoD leadership
 - Ensure operative follow-through and execution of initiatives
- How
 - SecDef embrace recommendations for immediate implementation
 - DepSecDef establish specific timeframe and process to track progress
 - USD(AT&L) and DCMO to implement and hold Department accountable for results
 - USD(AT&L) seek opportunities to underscore messages to industry and Wall Street
 - USD(AT&L) to re-exert control over commercial contracting guidance
- Why
 - Clarify DoD goals and priorities
 - Correct inadvertent, erroneous, and conflicting messaging
 - Underscore fact that DoD seeks innovative commercial solutions and will engage industry on commercial terms where possible
 - Capitalize on “window of opportunity” to set investment expectations and provide directional guidance to DIB and Wall Street

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Figure 33 - Recommendation 5 slide.

RECOMMENDATION 5:

PROVIDE CLEAR AND CONSISTENT SENIOR-LEVEL MESSAGING OF DOD GOALS AND POLICIES

What:

Deliver clear and consistent messaging from senior DoD leadership. Ensure operative follow-through and execution of initiatives.



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How:

- SECDEF embrace recommendations for immediate implementation.
- DEPSECDEF establish specific timeframe and process to track progress.
- USD(AT&L) & DCMO implement and hold Department accountable for results.
- USD(AT&L) seek opportunities to underscore message to industry and Wall Street.
- USD(AT&L) re-exert control over commercial contracting guidance.

Why:

All of the recommendations put forth by the Task Group would benefit from clear and consistent endorsement and messaging by the senior leadership of the Department.

The Department, like any large organization, can only benefit by having its goals and priorities articulated and understood. Not only does such clarity help industry understand where the DoD seeks its input and innovation, but it sends a clear message to those within DoD with whom industry must interact on a day to day basis. Many of the frustrations experienced by industry today stem from DoD declaratory policy and operating behavior being in diametric opposition.

Correct and consistent messaging also addresses the inadvertent, erroneous, and conflicting messaging and widespread industry belief that the Department is against profit and commercial practices, is only focused on low cost and no longer interested in “best value,” and is not interested in engaging with the broader commercial industry. Whether anchored in truth is irrelevant; the perceptions are real and must be heeded. The DoD message should be that the Department seeks innovative, commercial solutions and will engage industry on commercial terms where possible.

The Department now has a window of opportunity to set investment expectations and to provide directional guidance to the Defense Industrial Base players and Wall Street. Wall Street analysts shared with the Task Group that the relative value of stock buy-backs may have reached the point of diminishing returns given the currently high prices of stock. Clarity of direction in messaging, as well as a stated willingness to address other points raised in this report, could unleash a willingness of the Defense Industrial Base to reinvest in the defense industry.



Recommendations 6, 7, 8

6. Systemize and mandate DoD workforce education as condition for promotion
 - Launch campaign to re-train acquisition workforce (see “Findings” p. 16)
 - Mandate year of study in a technical field at a major university or year in industry as a prerequisite for promotion to program manager/deputy manager/SES
 - Establish public-private partnership and rotational program with industry to cross-train personnel
7. Simplify DoD internal processes and policies
 - Ensure consistent long-term leadership; right people “on the bus”
 - Encourage other “fast lane” procurement methods
 - Seek permanent statutory authority for OTA
 - Direct that audits by one agency are accepted by other agencies
8. Re-examine industry structure and incentives to align with future DoD needs
 - Require that RFPs allow industry to propose more innovative ways to meet government needs without being considered non-compliant
 - Direct reduction of contractors housed in government facilities, 10% by FY15
 - Encourage more “DARPA-like” challenges and rapid prototype development
 - Curtail sole-source contracts to FFRDCs; open FFRDC work to greater competition
 - Encourage competition at the top and development of a larger DIB “middle tier”

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Figure 34 - Recommendations 6, 7, and 8 slide.

RECOMMENDATION 6:

SYSTEMIZE AND MANDATE DOD WORKFORCE EDUCATION AS CONDITION FOR PROMOTION

What:

Launch campaign to re-educate and train the acquisition and contracting workforce.

How:

- Direct DAU to offer courses focused on FAR Part 12, FAR Part 10, OTA, and other commercial procurement methods; industry operating models; risk management and mitigation; and



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- performance-based contracting;
- Require all existing contracting and acquisition staff to complete FAR Part 12 training within six (6) months;
- Mandate a year of study in a technical field at a major university or a year in industry as a prerequisite for promotion to program manager/deputy manager/SES (e.g., SECDEF fellows program, Services educational assistance programs, etc.);
- Establish a public-private partnership and rotational program with industry to cross-train personnel in the areas of contracting, procurement, and program management and systems integration.

Why:

The Task Group recognizes that DoD personnel are working hard to do their various jobs. No one should be expected to perform in ways for which they have no training, have been given no direction, or otherwise have no experience. The recommendations made here, when implemented, will enable senior leaders in the workforce to understand the technology they are dealing with so that they can make value-based, rather than just cost-based acquisition decisions, will provide acquisition officials with a better understanding of both programmatic and industry risk/return tradeoffs, and will provide insight into how industry approaches government work. In addition, practical training in the specifics of acquiring commercial “of a type” and how to undertake market research will be gained. Making the recommended training a requirement, or pre-requisite for promotion is urged as a way to make quick progress in this area.

RECOMMENDATION 7: SIMPLIFY DOD INTERNAL PROCESSES AND POLICIES; ENSURE CONSISTENT LONG-TERM LEADERSHIP

What:

Reduce DoD bureaucratic rules, polices, and processes where possible, and ensure that all members of DoD leadership are in accord with the changes being sought and will help implementation. Replace leaders who will not act to implement the desired changes.

How:

- Ensure strong commercial advocates are in key Department leadership positions; replace weak links or people with conflicting agendas;
- Encourage use of other “fast lane” procurement methods, e.g. OTA;



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- Seek permanent Congressional (statutory) authority for OTA; ¹⁰
- Direct that audits by one audit agency are accepted by other agencies; and
- Place meaningful authorities in the hands of the recommended commercial “ombudsman”

Why:

Without strong leadership and advocacy, attracting and retaining innovation will be stuck in “churn,” never to get traction. Given the confused and often conflicting messaging emanating from DoD, it is imperative that leadership is “on the same page” and moving in the same direction. Failure to achieve this consensus will only add to the messaging problems previously noted. The proposed commercial “ombudsman” could be critical in helping to address this challenge.

OTA is a useful tool for R&D and prototype development, as has been demonstrated by NASA and DARPA. Yet OTA authority is not permanent and is typically renewed by Congress every five years. Most recently under Public Law 112-239 Sec. 863, OTA authority was extended until the end of FY 2018. DoD should seek permanent Congressional authority for OTA.

RECOMMENDATION 8:

RE-EXAMINE INDUSTRY STRUCTURE AND INCENTIVES FROM STANDPOINT OF FUTURE DOD NEEDS

What:

Encourage the development of a more balanced defense industry structure that increases contractor competition and thereby DoD choices at all levels of the supply chain; ensure industry long-term incentives are aligned with DoD needs and priorities.

How:

- Require that Request for Proposals (RFPs) allow industry to propose better and more innovative ways to meet government needs, including alternative “design” or “input” parameters, without being considered non-compliant;
- Allow industry to propose different contract types or technical/delivery options, thereby encouraging greater innovation on the supplier side and more choice on the customer side;
- Structure contractor relationships around specific performance based deliverables;
- Encourage more DARPA-like challenges and rapid prototype development;

¹⁰. The Task Group recognizes that this recommendation for permanent authority for OTA will require Congressional action and approval, and that the Department cannot take this action on its own.



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- Curtail sole-source contracts to Federally Funded Research and Development Centers (FFRDCs) and open FFRDC work to greater industry competition if alternative suppliers exist; and
- Encourage competition at the top tier of the Defense Industrial Base and the development of a more robust industrial “middle tier” (\$1-10B revenue).

Why:

The implementation recommendations identified above require better trained contracting and acquisition personnel, and a greater dialogue and balance between DoD program offices and contracting officials – otherwise risk assessment, best value, mission priorities, and other considerations will all be trumped by lowest cost.

This point is relevant to the first two “how” recommendations noted above, as both require a greater capability on the part of government personnel to consider innovative approaches and ideas from industry. The use of independent and non-conflicted systems engineering firms (i.e., independent from the major prime contractors, and non-conflicted from the procurement in question) can augment government capabilities and facilitate in this area.

When contractors are housed with government personnel, the customer/contractor relationship deteriorates and contractors are treated more like staff to government employees. For some kinds of work, this arrangement may make sense; however, for most work, greater value from contractors can be achieved by requiring the relationship to be structured around performance-based deliverables. Under such an arrangement institutional knowledge, rather than simply an aggregation of individual contributors, can be brought forward to address specific customer needs.

The recommendation that sole-source contracting with FFRDCs be reduced is made for the following reasons: First, by fundamental definition and charter, the FFRDCs exist to perform work that cannot be performed by for-profit contractors. There is no need to sole-source work to the FFRDCs where there is an augmented (post the Weapon Systems Acquisition Reform Act of 2009) and robust private sector industry segment that is free of Organizational Conflicts of Interest and fully able to do the vast majority of work that has been contracted to FFRDCs. This un-conflicted for-profit industry segment did not exist when most FFRDCs were established, which justified sole-source contracting. Second, greater competition leads to better pricing and more innovation. The government should be able to gain these benefits by exposing FFRDC work to market competition. Third, sole-source contracting has protected FFRDCs from making the kinds of market-required cost adjustments required by competition in an over capacity market. It is well documented that the costs of doing business with most FFRDCs is appreciably higher than doing business with industry.



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Finally, DoD would be better served in many ways if the Defense Industrial Base was better balanced and if it (DoD) was more inviting of innovative ideas from both within and outside its traditional supplier community. What is meant by “better balanced” is that DoD will have more choices at the prime level (thus, a greater number of prime-capable companies), and a more robust “middle tier” of companies capable of serving as prime contractors on smaller programs, and able to offer alternatives at the system and sub-system or component levels. A more robust cadre of systems engineering and systems integration firms would also help DoD reduce its dependence on the major prime contractors. All of these changes would open up channels to have more companies compete for DoD programs, and combined with streamlined procurements, performance-based requirements, and a greater use of the commercial “of a type” contracting methods, would encourage innovation from traditional and non-traditional suppliers. There is only upside for the DoD if these changes occur.



Summary

- The focus of this report is on what DoD can do now and what can have immediate market impact
 - No new authorities required in order to act
 - Our recommendations target specific remediable barriers
- To attract commercial innovation, DoD must change its acquisition model
 - Business process innovation on the customer side is a necessary first step
 - DoD must adapt its behavior, policies, and procedures to the current market realities
- Recommendations reflect the particular issues around the different types of innovation

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Figure 35 - Summary slide

SUMMARY

The focus of this report is on what the Department can do now that will have immediate impact. The recommendations made herein require no new authorities or Congressional action. The recommendations are realistic and achievable in the current DoD environment regardless of culture and bureaucracy.

In the end, the challenge is straightforward: Adapt DoD behavior to the new environment of reduced budgets, rapid technology development cycles, and commercial-driven innovation without incurring onerous, unintended consequences that stifle innovation.



THE DOD MARKET: POTENTIALLY LARGE, BUT RELEVANT?

A certain amount of humility is required to implement these recommendations. From a commercial business perspective, the DoD is not the dominant market player it thinks it is. For the existing Defense Industrial Base, the DoD is certainly the dominant player; the DoD expects the traditional defense industry (the DIB) to follow its dictate, and to “march to its drum.” The DIB accommodates and performs as requested, since serving the Department is its core purpose. Being part of the United States Defense Industrial Base is a defining characteristic of companies in the DIB. By contrast, for companies outside the traditional defense industrial base, the DoD is not the dominant player and in many instances is not a particularly relevant player. Accordingly, DoD must take the initiative to attract industry. For large, international companies such as Google, where the United States as a whole is 40 percent of its market, the DoD is not a significant piece of the US market. Outside of the DIB, companies make business decisions, uninfluenced by DoD missions or objectives. They make decisions based on fit with their purpose and vision, appropriateness of their cost and operating model to the new market, whether they bring a competitive advantage to the market, assessing risk, and determining whether overall levels of profitability and return are acceptable.

THE IMPERATIVE TO CHANGE

To attract commercial innovation, therefore, DoD must change its acquisition model as a necessary first step; that is, business process innovation is first focused on the customer. The DoD must align its models, policies, and processes with the new market environment and global economy. It must attract industries for which DoD is at best one of a number of potential market adjacencies.

The market reality is that technology is moving at a faster and faster pace. Continued technology leadership in military capabilities and weapon systems will require the ability to access, integrate, and deploy the most current technologies available. The military is disserved when its acquisition system cannot move at the speed of innovation. It is the difference between being able to maintain technological superiority or being a slow follower because the current process does not allow quick, deliberate decisions. Without the will to confront its own bureaucratic leanings, DoD will fall behind technology that is otherwise available.

DoD must change and adapt, and thereby improve its current acquisitions practices to match its world class military. Failure to make these changes will have long-standing implications for the quality of military capabilities deployed in the future.



UNDERSTANDING AND MAXIMIZING INNOVATION

This report and the recommendations made herein, reflect an understanding of different kinds of innovation and what is required to maximize each form of innovation. Evolutionary innovation is the easiest as it is “top-down” and focuses on known products and services, and known problems. For the DoD, it is largely the realm of contracted R&D and government funded IR&D. The expanded use of “commercial of a type” contracting will allow for new contract offerings in this area. The DoD will become a more attractive market adjacency for commercial companies.

For innovation focused on efficiency gains, DoD needs to consider ways to incentivize industry to be more efficient. Key to this incentive will be that industry benefits from the efficiencies it introduces. The key is that efficiency innovation represents business process changes and not just cost reductions. If DoD continues to use and even emphasize “incentive fee” contracts, it must be careful to ensure that the benefits deriving from business process efficiencies and the resultant cost reductions are shared with industry and do not mostly accrue to the government. Business process changes that increase efficiency deliver sustainable and long-term cost benefits to DoD.

Innovation that is revolutionary, and therefore disruptive, is the most difficult to achieve but arguably the most significant form of innovation. It is driven by market opportunity. Often disruptive innovation emerges from market adjacencies; companies introduce a new product, service, or operating model to customers that are dissatisfied or unenthusiastic consumers of the more established offerings. Once a foothold is gained, these new competitors are able to move into the core markets of the dominant competitors, offering products and services on a different and more attractive basis. What exposes the dominant competitors to erosion from new entrants is that they often are so focused on the established customers that they overreach, and expose themselves to lower cost and more innovative alternatives.

In this construct, the DoD is the dominant customer, and the DIB (particularly the major, vertically integrated prime contractors) consists of the traditional suppliers supporting its main customer at the increasingly vulnerable stage. In a normal commercial market, this relationship and behavior would expose the incumbent players to new innovative entrants. What protects the DIB and what serves as an all but insurmountable barrier against the new entrants, are all the rules and regulations of contracting within the Department – the rules and processes encompassed by FAR Part 15. Without a path in there will be no innovation from new entrants.



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There are a number of commercial examples that underscore this point. Airbnb has emerged as an alternative to hotels for some consumers. They have gained a foothold at the low end of the market, with consumers who either would not go to a hotel at all (thus, new consumers altogether), or who simply do not want to pay for all the “extras” offered by hotels. They do not want to pay for chocolate on the pillow, a concierge, or valet parking. Airbnb has proliferated globally (over 500,000 listings) and is now beginning to erode the core market of hotels because it is delivering a “good enough” service at a much lower price. The DoD analogy is straightforward: DoD has become addicted to the high end offering, and writes requirements covering every possible contingency. In some cases, of course, this approach is necessary; but in most cases, it represents significant overkill and carries a high price.

Other commercial examples of similar disruptive innovation are Minute Clinics vs. traditional doctors and specialists, Uber car services vs. the highly regulated taxi industry, and the already mentioned Netflix DVDs vs. Blockbuster Video, and then Netflix DVDs vs. Netflix streaming.

In the Defense community, the Army’s Distributed Common Ground System (DCGS-A) vs. Palantir is another example of when over-reliance on the “exquisite” capability provides an opportunity for a “good enough” system to gain entry into a market. In this case, Army soldiers operating in Afghanistan were looking for alternative capabilities to DCGS-A, which created an opportunity for Palantir (a data analytics company which first entered the defense and intelligence market by way of In-Q-Tel) to provide a cheaper system that met the demands of end users. While this is a controversial example, it nevertheless serves to underscore the point that innovative technologies and services can disrupt markets, even in the Defense community, if the environment so exists.

DoD has pushed itself to an overreach stage, while at the same time protecting and closing off the system to competitors who might come in and provide disruptive goods and services. The Department must alter its processes to invite innovation that will also meet the Department’s needs.



Time for action is now

- If future military technological leadership is the goal, DoD must elevate mission above process
- Commercial industry is questioning whether DoD is a desirable market
- Window of opportunity exists now for clear messaging to commercial industry, DIB and Wall Street

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Figure 36 - DoD has an opportunity to take action now to invite more innovation.

ACTION NOW!

A fundamental issue is whether the United States will maintain military technological superiority at a time when the leadership of so much critical technology does not reside within the Defense Industrial Base, but instead in commercial industry and in markets around the globe. The answer is that although in the past the Department had access to the best technologies (and could deny such technologies to enemies), that paradigm cannot be relied on for the future. The United States will always have some critical technologies on an exclusive basis, but increasingly must rely on other factors. To address this new reality, the Department must begin to rely more on what the commercial markets call “speed to market,” i.e., the ability to rapidly identify, acquire, integrate



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and deploy technologies, capabilities, and processes into its weapon systems and to its deployed forces. Technology plus speed to market is the new currency for maintaining military superiority.

Now is the time for action. Industry outside of the Defense Industrial Base is questioning whether DoD is a desirable market. For the Department, the issue is whether mission is paramount, or whether yesterday's perspectives, processes, and policies will trump mission. There is a window of opportunity – now – for DoD to make clear by word and deed that it wants to engage with the non-DIB commercial sector. To do so the Department must take clear and decisive actions, as recommended, that demonstrate its commitment and desire to welcome innovation from non-traditional sources. The Department, therefore, must change first. In conjunction, the Department must direct industry and Wall Street as to where it needs investment, and to make clear that the Department expects to see new industrial investment.

All change depends on the leadership of senior executives. As Albert Einstein noted, “you can never solve a problem on the level on which it was created.” Department innovation, if it occurs, will start at the top. At stake is whether DoD will continue as the leader in developing and deploying advanced technologies and capabilities, or whether DoD will relegate itself to a traditional force, using size and scale as its main deterrent.

Respectfully submitted,

David H. Langstaff
Task Group Chair

Terms of Reference

TAB A



DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

MAY 26 2013

MEMORANDUM FOR CHAIRMAN, DEFENSE BUSINESS BOARD

SUBJECT: Defense Business Board Terms of Reference – “Best Practices by the Department of Defense to Achieve More Effective Participation by Industry”

The Department of Defense (DoD) depends on the industrial base and the private sector to obtain essential materiel and services. DoD works closely with industry to inform and align near- and long-term investment decisions with its requirements and acquisition processes. Requirements determination should take into consideration industry’s ability to innovate and advance technology. However, industry often lacks knowledge of DoD’s near- and long-term strategic concerns so that it can better apprise DoD of available solutions and technology advancements that would allow DoD to better meet its future requirements.

DoD awards complex service and materiel contracts to the private sector and conducts management and oversight of contractors’ performance. Large private sector companies also award complex contracts with their suppliers and subcontractors and also have various means of oversight. DoD’s oversight practices may be incongruent with best business practices for effective management. DoD’s oversight processes may unnecessarily add costs and discourage private companies from doing business with DoD, or its prime contractors.

As DoD’s advisory board for providing independent advice on best business practices, the DBB is directed to conduct, through a DoD established Task Group, a study that reviews best business practices for contract oversight and ways to encourage broader participation with the private sector. As a minimum, the DBB’s recommendations should address:

- A number of studies have been conducted to increase participation with the industrial base. Of recommendations from these studies, what has worked, what has not, and why?
- How can DoD gain greater access to innovation from the private sector marketplace?
- In a lower budget environment, are there segments of the industrial base that are at higher risk for exiting the industry or reducing investment in innovation?
- What could be done to promote better industry understanding of DoD known and future requirements to enable firms to apprise DoD of potential solutions and technology enhancements?
- What are the low-value added overhead cost drivers currently imposed by the Department that may be reduced or eliminated to achieve savings?



OSD003442-13

- Where can DoD reduce or eliminate impediments and barriers to entry for high technology firms that would not otherwise choose to participate in the defense sector?
- What policy or statutory changes would be required to implement the recommendations?

As a subcommittee of the DBB, this Task Group must comply with the Federal Advisory Committee Act of 1972, the Government in the Sunshine Act of 1976, Federal regulations, and DoD policies and procedures. The Task Group will not work independently of the DBB's charter and will report its recommendations to the DBB for full deliberation and discussion in open session. The Task Group does not have the authority to make decisions on behalf of the Board, nor can it report directly to any Federal officer. The Task Group will avoid discussing "particular matters" within the meaning of Section 208 of title 18, U.S. Code.

A handwritten signature in black ink, reading "Ashton B. Carter". The signature is written in a cursive style with a large, prominent initial 'A'.

DBB Industry Task Group Biographies

TAB B



David H. Langstaff



Mr. Langstaff served as President & Chief Executive Officer of TASC, Inc. from March 2011 through November 2013. He served as Chairman of the Board of Directors of TASC, Inc. upon its acquisition by General Atlantic Partners and KKR in December, 2009. TASC, with over 4,000 employees and revenue in excess of \$1.3 billion, is the premier, independent company offering advanced enterprise and systems engineering services, integration and decision-support and other technical services across the intelligence community, Department of Defense and civilian agencies of the federal government.

Previously, Mr. Langstaff was President, Chief Executive Officer and Director of Veridian Corporation from its formation in 1997 until its sale to General Dynamics in August 2003. Veridian was an advanced technology company that specialized in mission-critical national security programs primarily for the intelligence community, military and other U.S. Government agencies involved in law enforcement and homeland security. Veridian was regarded as one of the preeminent companies in its field with a strong values-based culture, and its IPO was recognized by the Financial Times as one of the ten best global IPOs in 2002. Mr. Langstaff served as Chief Financial Officer, Chief Operating Officer, and Chief Executive Officer of predecessor companies including Calspan and Space Industries International since 1984. Mr. Langstaff also served as Chief Executive Officer and co-chairman of The Olive Group, a global integrated security company with offices in Dubai, London and Washington, DC, from August 2006 through December 2007.

Mr. Langstaff is a senior seminar moderator on values-based leadership with The Aspen Institute, chairs the Advisory Board of the Aspen Institute Business and Society policy program, and is a Trustee of the Committee for Economic Development and The Hitachi Foundation. Since 2009, he has served on the Defense Business Board, which provides independent advice to the Secretary and Deputy Secretary of Defense. From 2004-2010, Mr. Langstaff served on the Board of Directors of SRA International (NYSE: SRX), where he chaired the Committee on Compensation & Personnel and the Long Range Planning Committee. He served on the Board of Directors of QinetiQ Group PLC (LSE: QQ) from 2009-2011, where he was a member of the Audit, Remuneration, and Governance Committees.



Denis A. Bovin

Senior Advisor, Evercore Partners



Denis A. Bovin is Senior Advisor to Evercore Partners, a leading global independent Investment Banking and Advisory Firm. Prior to joining Evercore, he was Chairman and CEO of Palimere Group LLC and had been Co-Chairman and Co-CEO of Stone Key Partners LLC. He had previously been Vice Chairman – Investment Banking, Senior Managing Director and Chairman of the Global Technology, Media and Telecom Group at Bear Stearns & Co.

Mr. Bovin began his career at Salomon Brothers and helped build, and ultimately headed, that firm's Investment Banking Corporate Coverage and Capital Markets Divisions. He also led the firm's Communications and Technology Group which covered computer, defense, telecommunications, electronics and media companies. During that period, Mr. Bovin was selected by Institutional Investor magazine as one of the country's twelve most outstanding young investment bankers.

Mr. Bovin received his B.S. degree from the Massachusetts Institute of Technology and an M.B.A. degree from the Harvard Business School. He has more than 40 years of experience advising Senior Managements and Boards of Directors of domestic and international companies and government agencies. He has helped initiate and implement some of the most consequential strategic and financial transactions in the commercial and government technology sectors.

He is Chairman of the MIT Investment Management Company, which oversees the investment of MIT's approximately \$17 billion endowment and related funds; is a member of the MIT Executive Committee and is a Life Member of the MIT Corporation; a member of the Council on Foreign Relations; and was Chairman of the Overlook Hospital Foundation in Summit, New Jersey. He is Vice Chairman of Business Executives for National Security, Inc. ("BENS"), a Vice Chairman of the Intrepid Foundation and a Board Member of the Center for a New American Security and the MIT Lincoln Laboratory. Mr. Bovin is listed in *Who's Who in Finance and Industry*.

Mr. Bovin is a member of the Defense Business Board, which advises the military and civilian Defense leadership on strategies for adopting best business practices, and has served as a representative to the Defense Policy Board. He is a Consultant to, and was a member of, the Defense Science Board ("DSB"), which advises the Secretary of Defense and the Chairman of the



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Joint Chiefs of Staff. DSB members are selected based on their preeminence in science, technology and the military acquisition process. In 2006, Mr. Bovin received a Presidential appointment to the President's Intelligence Advisory Board and served as a member of the Board until 2009. He has served on the Senior Advisory Groups for both the United States Southern Command and the United States European Command.

Mr. Bovin has the distinction of being awarded both the Office of the Secretary of Defense Medal for Exceptional Public Service, as well as the Department of Defense Medal for Distinguished Public Service, the highest honor that can be conferred on a civilian, for his DEFENSE BUSINESS BOARD "dedication and commitment to the men and women of the U.S. Armed Forces" and for his "vital and lasting contributions to the Department of Defense". He is a recipient of the Intrepid Salute Award; the BENS' Eisenhower Award; The Leatherneck Award from the Marine Corps Scholarship Foundation for "demonstrating the qualities that characterize Marines"; and several awards and honors from MIT, including its highest honor for alumni. He is a contributor to the book: Keeping the Edge: Managing Defense for the Future; helped create and teach the course "Business and National Security" at the Sloan School of Management at MIT; and has lectured at the United States Military Academy at West Point. Defense Daily named Mr. Bovin as one of the world's 40 Most Influential People in global defense, aerospace and national security and Defense News has named him one of the 100 Most Influential People in US defense.

Mr. Bovin resides in New York City with his wife, Terry, a songwriter and charitable foundation executive. His daughter, Dr. Michelle Bovin, is a Clinical Psychologist with a Research and Clinical focus on PTSD.



Lon C. Levin

President, SkySevenVentures



Lon Levin is an executive and entrepreneur with over 30 years of experience in new media, telecommunications, and aerospace industries. Lon is President of SkySevenVentures, which invests in, operates, and advises new technology companies including businesses in cyber security, Internet personal radio, Internet video messaging, launch vehicles, investment banking, commercial satellites, and crowd sourced data. Lon speaks at industry, academic, and government conferences on technology business management, policy, and finance.

Lon is the cofounder of XM Satellite Radio and played an integral executive role in the formation and development of other media, satellite, and wireless companies including Mobile Satellite Ventures, XM Canada, Motient Corporation, American Mobile Satellite Corporation, and TerreStar. Before his corporate career, Lon was a partner in the law firm of Gurman, Kurtis, Blask & Freedman, where he specialized in satellite, media, space, and wireless matters. He started his career as an attorney at the Federal Communications Commission. Throughout the 1990s, Lon served as a U.S. Delegate at many United Nations International Telecommunication Union conferences negotiating technology treaties. Lon holds four communication satellite patents.

Lon serves as a member of the Department of Defense's Defense Business Board and as a committee member of the NASA Advisory Council. Lon is the Chairman of the Board of Directors of the Space Foundation and is Treasurer and member of the Board of Directors of the Planetary Society. He was a founding board member of the Satellite Industry Association and was its co-chairperson from 1996-98. Lon was on the Board of Directors (2001-2008) of the Cultural Development Corporation of Washington, DC, which helps artists secure affordable housing and work places. Lon is a member of the New York State and Washington, D.C. Bars.



The Honorable Dov S. Zakheim

Senior Fellow at the CNA Corporation and a Senior Advisor at the Center for Strategic and International Studies



Dov S. Zakheim is a Senior Fellow at the CNA Corporation and a Senior Advisor at the Center for Strategic and International Studies. Previously he was Senior Vice President of Booz Allen Hamilton, where he led the Firm's support of U.S. Combatant Commanders worldwide.

From 2001 to April 2004, Dr. Zakheim was Under Secretary of Defense (Comptroller), and Chief Financial Officer for the Department of Defense (DoD), serving as principal advisor to the Secretary of Defense on financial and budgetary matters, leading over 50,000 staff, developing and managing the world's largest budgets, and negotiating five major defense agreements with US allies and partners. From 2002-2004, Dr. Zakheim was DoD's coordinator of civilian programs in Afghanistan. He also helped organize the 2003 New York (United Nations), and Madrid Donors conferences for Iraq reconstruction.

From 1987 to 2001, Dr. Zakheim was both corporate vice president of System Planning Corporation, a technology and analysis firm based in Arlington, Va., and chief executive officer of its subsidiary, SPC International Corp. During the 2000 presidential campaign, he served as a senior foreign policy advisor to then-Governor Bush.

From 1985 until March 1987, Dr. Zakheim was Deputy Under Secretary of Defense for Planning and Resources in the Office of the Under Secretary of Defense (Policy), playing an active role in the Department's system acquisition, strategic planning, programming and budget processes. Dr. Zakheim held several other DOD posts from 1981 to 1985. Earlier, he was a principal analyst in the National Security and International Affairs Division of the Congressional Budget Office.

Dr. Zakheim has served on numerous government, corporate, non-profit and charitable boards. His membership on government boards and panels includes the United States Commission for the Preservation of America's Heritage Abroad (1991-93); the Task Force on Defense Reform (1997); the Board of Visitors of the Department of Defense Overseas Regional Schools (1998-2001); and Defense Science Board task forces on "The Impact of DOD Acquisition Policies on the Health of



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the Defense Industry” (2000) and “Urgent Operational Needs” (2009); the Secretary of the Navy’s Advisory Board (2008-2010), and the Commission on Wartime Contracting in Iraq and Afghanistan (2008-2011). Dr. Zakheim is currently a Senior Fellow of the Defense Business Board, on which he served 2004-2010, and which he helped establish.

Dr. Zakheim is a member of the Chief of Naval Operations Executive Panel; the Council on Foreign Relations; the International Institute for Strategic Studies and Chatham House/The Royal Institute of International Affairs. He is Vice Chairman of the Foreign Policy Research Institute’s Board of Trustees, and of the Board of Directors of the Center for The National Interest; he is also a board member of Search for Common Ground. Dr. Zakheim is a Fellow of the Royal Swedish Academy of War Sciences.

A 1970 graduate of Columbia University with a B.A., summa cum laude, and a member of Phi Beta Kappa, Dr. Zakheim also studied at the London School of Economics. He holds a doctorate in economics and politics at St. Antony’s College, University of Oxford, where he held three graduate and post-graduate fellowships. Dr. Zakheim was an adjunct Senior Fellow of the Council on Foreign Relations, and an adjunct Scholar of the Heritage Foundation. He has been an adjunct professor at the National War College, Yeshiva University, Columbia University, Georgetown University, and Trinity College, Hartford, Conn., where he was Presidential Scholar.

The author of a dozen books or monographs, most recently *A Vulcan’s Tale: How the Bush Administration Mismanaged the Reconstruction of Afghanistan* (Brookings: 2011), as well as numerous articles, Dr. Zakheim has lectured and provided print, radio and television commentary on national security policy issues domestically and internationally. He is the recipient of numerous awards for his government, professional and civic work, including the Defense Department’s highest civilian award in 1986, 1987 and 2004.



Sally Donnelly *Founder and CEO, SBD Advisors*

Sally Donnelly is Founder and CEO of SBD Advisors, an international consulting firm that provides strategic advice to companies, organizations, and family offices with policy, communication or regulatory interests. SBD Advisors also represents senior national security officials on their transition from public service to the private sector. She is a Senior Advisor to C5, a London-based investment firm that focuses on the safety and security sectors. She is also a board member of the American Friends of Black Stork, a U.K.-based charity dedicated to the treatment and rehabilitation of military veterans.

Prior to founding SBD Advisors, Donnelly served as head of Washington's office for US Central Command, which covers operations and engagements across 20 countries in the Middle East. Donnelly was a key advisor to General Jim Mattis on policy issues, Congressional relations, communications, and engagements with foreign governments. Prior to that, Donnelly was a Special Assistant to the Chairman of the Joint Chiefs of Staff, Admiral Mike Mullen. She advised the Chairman on a range of internal and external issues and traveled widely with the Chairman. She helped the Chairman establish the CJCS task force on wounded troops, and served on the Secretary of Defense's Review panel on the Ft. Hood shootings.

Before joining the Chairman's personal staff, Donnelly worked at Time Magazine for twenty-one years, including tours in the Los Angeles, Moscow, and Washington bureaus. Donnelly has a Masters degree in Russian politics from the London School of Economics and a B.A. (cum laude) in History from Hollins College. Donnelly completed an executive education course at the Haas School of Business at the University of California, Berkeley.

Interview List
Selected works

TAB C

INTERVIEWS

DoD and Other Government (current and former)

Bruce Andrews – Chief of Staff, Department of Commerce

Elana Broitman – Deputy Assistant Secretary of Defense (Manufacturing and Industrial Base Policy)

General James Cartwright – former Vice Chairman of the Joint Chiefs of Staff

Sean Crean – Director, Office of Small Business Programs (Navy)

Lt. Gen. Charles Davis – Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition

Richard Ginman – Director, Defense Procurement and Acquisition Policy

Andre Gudger – Director, Defense Small Business Programs Office

Mark Husband – Senior Advisor for Root Cause Analyses, Performance Assessments and Root Cause Analyses

Frank Kendall – Under Secretary of Defense (Acquisition Technology & Logistics)

Brett Lambert – former Deputy Assistant Secretary of Defense (Manufacturing and Industrial Base Policy)

Alan Shaffer – Acting Assistant Secretary of Defense (Research & Engineering)

Heidi Shyu – Assistant Secretary of the Army for Acquisition, Logistics, and Technology

Jim Thomsen - Principal Civilian Deputy Assistant Secretary of Navy, Research, Development & Acquisition

Scott Ulrey – Deputy Director, Contracts Management Office, Defense Advanced Research Projects Agency

Defense Industry Experts and Financial Analysts

David Berteau – Center for Strategic and International Studies

Marty Bollinger – Strategy& (formerly Booz & Company)

Pierre Chao – Renaissance Strategic Advisors

Chris Kubasik – Seabury Group (formerly CMO of Lockheed Martin Corporation)

Craig Oxman – Credit Suisse

Arnold Punaro – The Punaro Group

Cai Von Rumohr – Cowen Group

Stan Soloway – Professional Services Council
Space Foundation

Innovation Experts

Chris Darby – In-Q-Tel

Mark Johnson – Innosight

Rory McDonald – Harvard Business School

Industry

Analytical Graphics, Inc.
Blue Ridge Networks
Digital Globe
FLIR Systems, Inc.
Google
Intelsat
Northrop Grumman Corporation
Robertson Fuel Systems, LLC
SpaceX

SAMPLE SELECTION OF REVIEWED WORKS

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Grueber, Martin, and Tim Studt. 2014 Global R&D Funding Forecast. Battelle, 2013.

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*Perry Memo
Commercial Item Definition
Gansler Memo*

TAB D

PERRY MEMO

29 June 94

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS

Chairman of the Joint Chiefs of Staff
Under Secretaries of Defense
Comptroller
Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)
General Counsel
Inspector General
Director of Operational Test and Evaluation
Directors of the Defense Agencies
Commander-in-Chief, U.S. Special Operations Command

SUBJECT: Specifications & Standards - A New Way of Doing Business

To meet future needs, the Department of Defense must increase access to commercial state-of-the-art technology and must facilitate the adoption by its suppliers of business processes characteristic of world class suppliers. In addition, integration of commercial and military development and manufacturing facilitates the development of dual-use processes and products and contributes to an expanded industrial base that is capable of meeting defense needs at lower costs.

I have repeatedly stated that moving to greater use of performance and commercial specifications and standards is one of the most important actions that DoD must take to ensure we are able to meet our military, economic, and policy objectives in the future. Moreover, the Vice President's National Performance Review recommends that agencies avoid government-unique requirements and rely more on the commercial marketplace.

To accomplish this objective, the Deputy Under Secretary of Defense (Acquisition Reform) chartered a Process Action Team to develop a strategy and a specific plan of action to decrease reliance, to the maximum extent practicable, on military specifications and standards. The Process Action Team report, "Blueprint for Change," identifies the tasks necessary to achieve this objective. I wholeheartedly accept the Team's report and approve the report's primary recommendation to use performance and commercial specifications and standards in lieu of military specifications and standards, unless no practical alternative exists to meet the user's needs. I also accept the report of the Industry Review Panel on Specifications and Standards and direct the Under Secretary of Defense (Acquisition and Technology) to appropriately implement the Panel's recommendations.

I direct the addressees to take immediate action to implement the Team's recommendations and assign the Under Secretary of Defense (Acquisition and Technology) overall implementation

responsibility. I direct the Under Secretary of Defense(Acquisition and Technology) to immediately arrange for reprogramming the funds needed in FY94 and FY95 to efficiently implement the recommendations. I direct the Secretaries of the Military Departments and the Directors of the Defense Agencies to program funding for FY96 and beyond in accordance with the Defense Planning Guidance. Policy Changes

Listed below are a number of the most critical changes to current policy that are needed to implement the Process Action Team’s recommendations. These changes are effective immediately. However, it is not my intent to disrupt on-going solicitations or contract negotiations. Therefore, the Component Acquisition Executive (as defined in Part 15 of DoD Instruction 5000.2), or a designee, may waive the implementation of these changes for on-going solicitations or contracts during the next 180 days following the date of this memorandum. The Under Secretary of Defense (Acquisition and Technology) shall implement these policy changes in DoD Instruction 5000.2, the Defense Federal Acquisition Regulation Supplement (DFARS),and any other instructions, manuals, regulations, or policy documents, as appropriate.

Military Specifications and Standards: Performance specifications shall be used when purchasing new systems, major modifications, upgrades to current systems, and non-developmental and commercial items, for programs in any acquisition category. If it is not practicable to use a performance specification, a non-government standard shall be used. Since there will be cases when military specifications are needed to define an exact design solution because there is no acceptable non-governmental standard or because the use of a performance specification or non-government standard is not cost effective, the use of military specifications and standards is authorized as a last resort, with an appropriate waiver.

Waivers for the use of military specifications and standards must be approved by the Milestone Decision Authority (as defined in Part 2 of DoD Instruction 5000.2). In the case of acquisition category ID programs, waivers may be granted by the Component Acquisition Executive, or a designee. The Director, Naval Nuclear Propulsion shall determine the specifications and standards to be used for naval nuclear propulsion plants in accordance with Pub. L. 98-525 (42 U.S.C. ‘7158 note).Waivers for reprocurement of items already in the inventory are not required. Waivers may be made on a “class” or items basis for a period of time not to exceed two years.

Innovative Contract Management: The Under Secretary of Defense (Acquisition and Technology) shall develop, within 60 days of the date of this memorandum, Defense Federal Acquisition Regulation Supplement (DFARS) language to encourage contractors to propose non-government standards and industry-wide practices that meet the intent of the military specifications and standards. The Under Secretary will make this language effective 180 days after the date of this memorandum. This language will be developed for inclusion in both requests for proposal and in on-going contracts. These standards and practices shall be considered as alternatives to those military

specifications and standards cited in all new contracts expected to have a value of \$100,000 or more, and in existing contracts of \$500,000 or more having a substantial contract effort remaining to be performed.

Pending completion of the language, I encourage the Secretaries of the Military Departments and the Directors of the Defense Agencies to exercise their existing authority to use solicitation and contract clause language such as the language proposed in the Process Action Team's report. Government contracting officers shall expedite the processing of proposed alternatives to military specifications and standards and are encouraged to use the Value Engineering no-cost settlement method (permitted by FAR 48.104-3) in existing contracts.

Program Use of Specifications and Standards: Use of specifications and standards listed in DoD Instruction 5000.2 is not mandatory for Program Managers. These specifications and standards are tools available to the Program Manager, who shall view them as guidance, as stated in Section 6-Q of DoD Instruction 5000.2.

Tiering of Specification and Standards: During production, those system specifications, subsystem specifications and equipment/product specifications (through and including the first-tier reference in the equipment/product specifications) cited in the contract shall be mandatory for use. Lower tier references will be for guidance only, and will not be contractually binding unless they are directly cited in the contract. Specifications and standards listed on engineering drawings are to be considered as first-tier references. Approval of exceptions to this policy may only be made by the Head of the Departmental or Agency Standards Improvement Office and the Director, Naval Nuclear Propulsion for specifications and drawings used in nuclear propulsion plants in accordance with Pub. L. 98-525 (42 U.S.C. '7158 Note).

New Directions

Management and Manufacturing Specifications and Standards: Program Managers shall use management and manufacturing specifications and standards for guidance only. The Under Secretary of Defense (Acquisition and Technology) shall develop a plan for canceling these specifications and standards, inactivating them for new designs, transferring the specifications and standards to non-government standards, converting them to performance-based specifications, or justifying their retention as military specifications and standards. The plan shall begin with the ten management and manufacturing standards identified in the Report of the Industry Review Panel on Specifications and Standards and shall require completion of the appropriate action, to the maximum extent practicable, within two years.

Configuration Control: To the extent practicable, the Government should maintain configuration control of the functional and performance requirements only, giving contractors responsibility for the detailed design.

Obsolete Specifications: The “Department of Defense Index of Specifications and Standards” and the “Acquisition Management System and Data Requirements Control List” contain outdated military specifications and standards and data requirements that should not be used for new development efforts. The Under Secretary of Defense (Acquisition and Technology) shall develop a procedure for identifying and removing these obsolete requirements.

Use of Non-Government Standards: I encourage the Under Secretary of Defense (Acquisition and Technology) to form partnerships with industry associations to develop non-government standards for replacement of military standards where practicable. The Under Secretary shall adopt and list in the “Department of Defense Index of Specifications and Standards”(DoDISS) non-government standards currently being used by DoD. The Under Secretary shall also establish teams to review the federal supply classes and standardization areas to identify candidates for conversion or replacement.

Reducing Oversight: I direct the Secretaries of the Military Departments and the Directors of the Defense Agencies to reduce direct Government oversight by substituting process controls and non-government standards in place of development and/or production testing and inspection and military-unique quality assurance systems.

Cultural Changes

Challenge Acquisition Requirements: Program Managers and acquisition decision makers at all levels shall challenge requirements because the problem of unique military systems does not begin with the standards. The problem is rooted in the requirements determination phase of the acquisition cycle.

Enhance Pollution Controls: The Secretaries of the Military Departments and the Directors of the Defense Agencies shall establish and execute an aggressive program to identify and reduce or eliminate toxic pollutants procured or generated through the use of specifications and standards.

Education and Training: The Under Secretary of Defense (Acquisition and Technology) shall ensure that training and education programs throughout the Department are revised to incorporate specifications and standards reform.

Program Reviews: Milestone Decision Authority (MDA) review of programs at all levels shall include consideration of the extent streamlining, both in the contract and in the oversight process, is being pursued. The MDA (i.e., the Component Acquisition Executive or his/her designee, for all but ACAT 1D programs) will be responsible for ensuring that progress is being made with respect to programs under his/her cognizance.

Standards Improvement Executives: The Under Secretary the Secretaries of the Military Departments, and the Director of the Defense Logistics Agency shall appoint Standards Improvement Executives within 30 days. The Standards Improvement Executives shall assume the responsibilities of the current Standardization Executives, support those carrying out acquisition reform, direct implementation of the military specifications and standards reform program, and participate on the Defense Standards Improvement Council. The Defense Standards Improvement Council shall be the primary coordinating body for the specification and standards program within the Department of Defense and shall report directly to the Assistant Secretary of Defense (Economic Security). The Council shall coordinate with the Deputy Under Secretary of Defense (Acquisition Reform) regarding specification and standards reform matters, and shall provide periodic progress reports to the Acquisition Reform Senior Steering Group, who will monitor overall implementation progress.

Management Commitment

This Process Action Team tackled one of the most difficult issues we will face in reforming the acquisition process. I would like to commend the team, composed of representatives from all of the Military Departments and appropriate Defense Agencies, and its leader, Mr. Darold Griffin, for a job well done. In addition, I would like to thank the Army, and in particular, Army Materiel Command, for its administrative support of the team.

The Process Action Team's report and the policies contained in this memorandum are not a total solution to the problems inherent in the use of military specifications and standards; however, they are a solid beginning that will increase the use of performance and commercial specifications and standards. Your leadership and good judgment will be critical to successful implementation of this reform. I encourage you and your leadership teams to be active participants in establishing the environment essential for implementing this cultural change.

This memorandum is intended only to improve the internal management of the Department of Defense and does not create any right or benefit, substantive or procedural, enforceable at law or equity by a party against the Department of Defense or its officers and employees.

William J. Perry

(Memo source: <http://www.sae.org/standardsdev/military/milperry.htm>)

COMMERCIAL ITEM DEFINITION

FEDERAL ACQUISITION REGULATIONS PART 2.101

“Commercial item” means—

1. Any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and—
 - (i) *Has been sold, leased, or licensed to the general public; or*
 - (ii) *Has been offered for sale, lease, or license to the general public;*
2. Any item that evolved from an item described in paragraph (1) of this definition through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;
3. Any item that would satisfy a criterion expressed in paragraphs (1) or (2) of this definition, but for—
 - (i) *Modifications of a type customarily available in the commercial marketplace; or*
 - (ii) *Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. Minor modifications means modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;*
4. Any combination of items meeting the requirements of paragraphs (1), (2), (3), or (5) of this definition that are of a type customarily combined and sold in combination to the general public;
5. Installation services, maintenance services, repair services, training services, and other services if—
 - (i) *Such services are procured for support of an item referred to in paragraph (1), (2), (3), or (4) of this definition, regardless of whether such services are provided by the same source or at the same time as the item; and*
 - (ii) *The source of such services provides similar services contemporaneously to the general public under terms and conditions similar to those offered to the Federal Government;*
6. Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed or specific outcomes to be achieved and under standard commercial terms and conditions. For purposes of these services—
 - (i) *“Catalog price” means a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise*

available for inspection by customers, and states prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public; and

(ii) *“Market prices” means current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.*

7. Any item, combination of items, or service referred to in paragraphs (1) through (6) of this definition, notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a contractor;
or
8. A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local governments.

GANSLER MEMO



ACQUISITION AND
TECHNOLOGY

THE UNDER SECRETARY OF DEFENSE

3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

JAN 5 2001

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
DIRECTOR, DEFENSE CONTRACT MANAGEMENT AGENCY
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Commercial Acquisitions

Defense acquisitions should emphasize performance-based requirements, include provisions that enable commercial practices, and encourage the participation of nontraditional commercial entities. The efforts of all members of the acquisition team are crucial to achieving increased use of commercial acquisitions, but the input of requirements personnel and program managers is particularly essential, since they impart knowledge of available technology to the team. To the maximum extent possible, commercial acquisitions should be conducted using Federal Acquisition Regulation (FAR) Part 12. The use of FAR Part 12 is designed to provide the Department of Defense (DoD) with greater access to commercial markets with increased competition, better prices, and new market entrants and/or technologies.

In March 1999, I directed the Deputy Under Secretary of Defense (Acquisition Reform) (DUSD (AR)) and the Director of Defense Procurement to charter an Integrated Process Team (IPT) to review DoD commercial item determinations and evaluate whether additional guidance, tools, or training were necessary. The IPT found that, while some progress has been made, many obstacles to accessing commercial items remain. These obstacles include inconsistent commercial item determinations, weak market research, and confusion concerning pricing of commercial items. Additionally, lessons learned as to the applicability of FAR Part 12 determinations are not being shared across DoD buying offices. These factors unnecessarily increase workload and acquisition cycle time.


To help overcome these barriers to accessing commercial items, I am taking the following actions:

- ◆ Providing clarification on FAR Part 12 use to yield appropriate consistency across DoD;
- ◆ Establishing goals that DUSD(AR) will track to ensure the Department continues to make necessary progress;
- ◆ Requesting each Service and Defense Agency to provide me, within 90 days of the date of this memorandum, an implementation plan outlining its methodology to ensure we meet our commercial item acquisition goals; and
- ◆ Requesting that the IPT determine the feasibility of establishing a pilot program so that the Services and Agencies may collect market research and Commercial Item Determinations in a central database, or developing tools to assist in ensuring commercial item determinations are reasonably consistent. I request that the recommendation regarding this action be presented to DUSD (AR) within 90 days of the date of this memorandum.



The attachment provides some immediate clarification. In addition, DUSD (AR) and the components are developing a Commercial Item Handbook to provide further guidance on sound business strategies for acquiring commercial items. This guidebook is scheduled for release in February 2001.

To effectively provide our warfighters with the technological advantage to win future conflicts, we must uniformly look first to the commercial marketplace before developing new systems; upgrading legacy systems; or procuring spare parts and support services.



J. S. Gansler

Attachment:
As stated

CLARIFICATION OF FAR PART 12 FOR CONSISTENCY

In implementing the guidance of FAR Part 12, misinterpretations and/or inconsistent applications have occurred with regard to the following definitions and issues: commercial-off-the-shelf; modified commercial items; of a type; Government-off-the-shelf; market versus catalog price; requirements definition; conduct of market research; use of Commerce Business Daily (CBD) Note 26; and, sole-source situations. The following clarifications are offered to create consistency across the Department.

Commercial Off-the-Shelf (COTS): A product does not have to be commercial-off-the-shelf (COTS) to meet the "commercial item" definition. COTS items are a subset of commercial items. The commercial item definition is much broader than products that are presently available off-the-shelf. It includes items that have only been "offered" for sale, lease, or license to the general public, as well as those that have evolved from a commercial item and are offered for sale, even if not yet available in the commercial marketplace. However, evolved items must be available in the commercial marketplace in time to satisfy solicitation delivery requirements. In addition, all other elements of the commercial item definition at FAR 2.101 must also be met.

Modified Commercial Items: When items available in the commercial market cannot meet the Department's need, DoD must determine whether market items can be or have been modified so that FAR Part 12 can be used. Two types of modifications are available: (1) modifications of a type available in the commercial marketplace; and, (2) minor modifications of a type not customarily available in the commercial marketplace made to Federal Government requirements. For modifications of a type available in the commercial marketplace, the size or extent of modifications is unimportant. For minor modifications, the item must retain a predominance of nongovernmental functions or physical characteristics.

"Of a Type": The phrase "of a type" is not intended to allow the use of FAR Part 12 to acquire sole-source, military unique items that are not closely related to items already in the marketplace. Instead, "of a type" broadens the commercial item definition so that qualifying items do not have to be identical to those in the commercial marketplace. The best value offer in a competitive Part 12 solicitation can be an item that has previously satisfied the Government's need but has not been sold, leased, licensed, nor offered for sale, lease or license to the general public (a nondevelopmental item as defined in 10 USC 403 (13)). In this scenario, the phrase "of a type" allows the best value offer to qualify for a Part 12 contract as long as it is sufficiently like similar items that meet the government's requirement and are sold, leased, licensed, or offered for sale, lease or license to the general public. In such instances, "of a type" broadens the statutory commercial item definition to allow Part 12 acquisition of a government-unique item that can compete with commercial items that meet the government's requirement. This avoids the undesirable result of shutting out otherwise price-competitive preexisting suppliers of government-unique items from Part 12 solicitations.

Government Off-the-Shelf (GOTS): GOTS is a commonly used term for nondevelopmental items (NDI) (as defined in 10 USC 403 (13)) that are Government-unique items in use by a Federal Agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement. The words "of a type" facilitate the acceptance of a best-value GOTS/NDI offer in response to a competitive FAR Part 12 solicitation when the offered GOTS/NDI items are sufficiently like similar items sold, leased, licensed, or offered for sale, lease or license to the general public.

Market Price versus Catalog Price for Services: The commercial item definition includes services of two general types: services in support of a commercial item; and, stand-alone services. In order to meet the commercial item definition, stand-alone services must be "based on established catalog or market prices." The price for the services must be based on either catalog prices or market prices.

"Catalog Prices" mean a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise available for inspection by customers, and states prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public.

"Market Prices" mean current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.

The established market price for stand-alone services does not have to be published or written. Market research enables the Government to collect data from independent sources in order to substantiate the market price.

Requirements Definition: It is imperative that all members of the acquisition team are cognizant of available or emerging technology and that requirement statements reflect any available commercial solutions. Requirements personnel and contracting officers should work together to ensure that commercial items can be -- and are -- used. Contracting officers need the input, guidance, and support of requirements personnel (e.g., adopting more open system architectures, identifying possible commercial components and technologies) to enable the use of commercial item acquisitions. The key to this process is robust market research.

Market Research: Market research -- and the teaming it relies upon -- must be an ongoing activity throughout an acquisition, in order to gather the robust data needed to make smart acquisition decisions. Market research is not limited to locating commercial items, although that is one purpose of its conduct. At a minimum, market research should be used to define requirements, locate commercial best practices, and assist in determining price reasonableness.

Full Use of CBD Note 26: If market research establishes that the Government's need cannot be met by a commercial item, FAR Part 12 shall not be used. For proposed contract actions that require publication in the Commerce Business Daily (CBD), the contracting officer must include a notice to prospective offerors that the Department does not intend to use FAR Part 12 for the acquisition. For the Defense Department, this notification is accomplished through use of CBD Numbered Note 26. The Department must make full use of CBD Numbered Note 26, which reads as follows:

Based upon market research, the Government is not using the policies contained in Part 12, Acquisition of Commercial Items, in its solicitation for the described supplies or services. However, interested persons may identify to the contracting officer their interest and capability to satisfy the Government's requirement with a commercial item within 15 days of this notice.

Sole-Source Situations: Contracting officers and requirements personnel should work together to avoid sole-source situations. Competition is enabled when needs are broadly stated

in terms of performance outcomes. However, a sole-source situation may be unavoidable, presenting pricing challenges. Tools and techniques are available for assisting in the price reasonableness determination for sole-source commercial item procurements. Sometimes, sole-source suppliers may attempt to exploit the lack of competitive markets and demand unreasonable prices. In such circumstances, the team should consider revising negotiation strategies to consider innovative solutions (e.g., strategic supplier alliances); buying the bare minimum quantities and working to restate the need to expand possible solutions and qualify alternate suppliers; and ultimately upgrading systems to current, commercial technology. In some cases, it may be necessary to escalate negotiations. The first escalation should be to the Procurement Executive, then, if necessary, to the Head of the Agency.

ESTABLISHMENT OF COMMERCIAL ITEM ACQUISITION GOALS

Commercial item acquisition using FAR Part 12 procedures is designed to provide greater access to commercial markets. Benefits include increased competition; use of market and catalog prices; and, access to leading edge technology and "non-traditional" business segments. The Road Ahead published on 2 June 2000 by USD (AT&L) established as a goal "an accelerated rate of increase in the dollar value of FAR Part 12 acquisitions with primes". The baseline for this goal is \$12.6 billion in FY 1999. Therefore, goals for Part 12 acquisitions are established for the components as follows:

1. Each Service and Defense Agency should double the dollar value of FAR Part 12 contract actions awarded in 1999 by the end of fiscal year (FY) 2005. This would bring the DoD total FAR Part 12 contract actions from \$12.6 billion to \$25.2 billion.*
2. Each Service and Defense Agency should strive to increase the number of FAR Part 12 contract actions awarded to 50 percent of all Government contract actions awarded by the end of FY 2005.*

(*For purposes of these goals, a contract action is defined as any new contract award and/or new delivery order placed against a contract awarded with a value greater than \$25,000.)

While it is important to emphasize use of Part 12 acquisitions where appropriate, it is also important to balance these goals with the objectives to increase competition, achieve access to leading edge technologies and non-defense business segments. Therefore, in evaluating each of the goals established above, each Service and Defense Agency, together with DUSD (AR) should ensure that these objectives are not achieved at the expense of the use of product support requirements, use of strategic alliances, consolidated support service contracts or multiple award type contracts. These overlapping objectives may, unavoidably, create challenges for the components. These issues should be addressed in the implementation plans due to DUSD (AR) within 90 days. Specific activities, such as the Defense Logistics Agency, may also need to establish goals above these thresholds, depending on the nature of their business.

Commercial Policy Coordination

Clarification of Commercial Item Policy

COTs – General Counsel recommended adding a sentence to the end of the paragraph, which was accepted.

Of a Type – The Inspector General strongly recommended that the “of a type” characterization be clarified. General Counsel wrote the clarification provided in this memorandum.

Modified Commercial Items – There was universal concern from all parties regarding the statement “For minor modifications of a type not customarily available, the modifications generally should not alter the nongovernmental function or essential physical characteristics by more than 50 percent.” This clarification has been removed from the memorandum. Additionally, as recommended by the Air Force, the handbook will stress the importance of adequately documenting the logic leading up to these determinations.

Market Price vs Catalog Price – Both DCAA and the IG expressed concern regarding the use of the phrase “through competition” used in the market price definition. While this policy memorandum was being processed, the Federal Acquisition Council published a proposed case 2000-303 containing the proposed definitions used in this policy memorandum. That case is now pending publication as a final rule. This policy is consistent with that final rule, notwithstanding the DCAA and IG concerns.

Market Research – DLA wants to add the term “appropriate to the circumstances” to the discussion of market research. Generally that’s good, but in this case it enables DLA personnel to do the absolute minimum, like checking who we bought it from last time, and still be in compliance. We will address this issue instead, in the commercial handbook.

Goals

The draft policy memorandum circulated, used the metrics established in *The Road Ahead* approved by the USD (AT&L) in June 2000. Each service expressed concern regarding the metrics:

Air Force & Army – Supported using number of actions as a goal but not dollars. AF recommended changing the title to emphasize goals.

Navy – Characterized the goals as arbitrary and capricious, stating that they could not be met, recommending as an alternative very conservative goals.

DLA – Recommended changing the approach to recognize that the goals need to be tailored to the business base of the activity. DLA already meets and exceeds the stated goals.

Defense Procurement – Recommended conducting an analysis of progress to date with Part 12 acquisition, before projecting further goals.

DCMA – Recommended a two stage approach: 1) asking the services for implementation plans 2) tailored to the activity.

IG – Noted that the measurement of only actions and dollars (i.e. volume) did not recognize that this policy area is complex and must balance the need to consolidate acquisitions (e.g. strategic alliances, product support pilot programs, or consolidated support service requirements) with the need to attract non-defense companies, and sustain competition.

Resolution - DUSD (AR) does not fundamentally disagree with the IG or component concerns, however, it is essential that stretch goals be established for the department regarding Part 12 acquisitions to ensure leadership involvement and to raise awareness. DCMA's recommendation is a sound one, as is the IG approach, which when combined leads to a policy that modifies the goals slightly, still ensures the goals will raise awareness but requires the development of an implementation plan regarding Part 12 acquisition. It also clarifies that component progress will be measured at the service level, thereby allowing for potential variation within that component. This approach also allows DLA to promote their tailored plan.

Commercial Item Determinations Database

DLA – Recommended that DUSD (AR) fund the development of an on-line decision resource tool for the acquisition workforce instead of a database.

AF/Navy/Army – While generally in support of this approach during the circulation of this policy in draft, each has now expressed concerns regarding the resources involved in supporting the database, even the pilot effort.

Defense Procurement – Expressed concern regarding the resources involved and stated that this information should not be intended to provide justification on future determinations.

Resolution – Clearly, we do not yet have resolution on this issue. The memo has been modified to keep the IPT in place and to review whether to develop tools or the data base, within two months, reporting to DUSD (AR) and DP as to how to proceed further.

Sole Source Pricing Trends

Despite the fact that the IG has been a member of the working group that developed this policy clarification, they chose to wait until coordinating on this policy to indicate that the primary issue requiring clarification was sole source pricing trends. The working group did not identify this issue specifically. In their second written non-concurrence,

they stated that an escalation sequence needed to be established that included OSD intervention for pricing issues.

Resolution – DUSD (AR) has specifically added language to address the IG's concerns, however recommends that the escalation process should be contained within the services/components. Specifically, The first escalation should be to the Procurement Executive, then, if necessary, to the Head of the Agency. This position was coordinated with the Section 803 pricing working group, chaired by Defense Procurement.

Unified Management

IG - Despite the fact that the IG has been a member of the working group that developed this policy clarification, they chose to wait until coordinating on this policy to remind DUSD (AR) that, in their opinion, Section 803 (d) of the 1999 Authorization Act had not been implemented. The working group did not identify this issue specifically.

Resolution – DUSD (AR) does not think this policy memorandum is the appropriate forum to resolve this issue.

Emphasis on Program Managers

IG – Requested that the role of the Program manager be emphasized. The tone of the memo has been strengthened to address their concerns.

Acronyms List

TAB E

ACRONYMS

CAS – Cost Accounting System
CR&D – Contracted Research and Development
DARPA – Defense Advanced Research Projects Agency
DAU – Defense Acquisition University
DCGS-A – Distributed Common Ground System – Army
DCMO – Deputy Chief Management Officer
DEPSECDEF – Deputy Secretary of Defense
DIB – Defense Industrial Base
DoD – Department of Defense
EPS – Earnings Per Share
FAR – Federal Acquisition Regulations
FFP – Firmed-Fixed Price
FFRDC – Federally Funded Research and Development Centers
FPDS – Federal Procurement Data System
FPI – Fixed Price Incentive
GAAP – Generally Accepted Accounting Principles
IDIQ – Indefinite Delivery, Indefinite Quantity
IP – Intellectual Property
IR&D – Independent Research and Development
LPTA – Lowest Price Technically Acceptable
NASA – National Aeronautics and Space Administration
OSD – Office of the Secretary of Defense
OTA – Other Transaction Authority
R&D – Research and Development
RFP – Request for Proposal
SECDEF – Secretary of Defense
SFR&D – Self-funded Research and Development
TINA – Truth in Negotiations Act
USD(AT&L) – Under Secretary of Defense for Acquisition, Technology and Logistics
USSOCOM – United States Special Operations Command



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1155 Defence Pentagon
Washington, DC 20301-1155