



# **Rethinking Competition**

## **in Defense Acquisition**

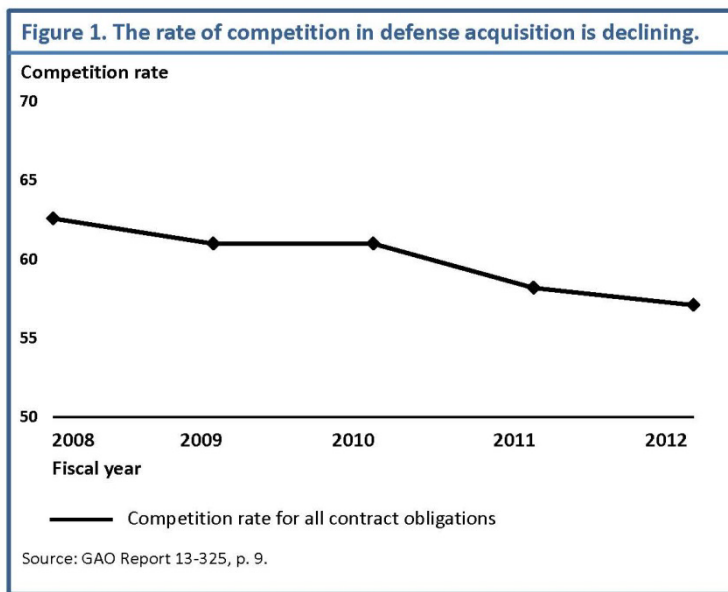


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## Rethinking Competition in Defense Acquisition

“The first responsibility of the acquisition workforce is to think.”  
– Better Buying Power 2.0 Implementation Directive<sup>1</sup>



In its 2014 Annual Report, *Performance of the Defense Acquisition System*,<sup>2</sup> the Department of Defense (DoD) states “Competition is the single best way to motivate contractors to provide the best value”. Frank Kendall, Under Secretary of Defense for Acquisition, Technology and Logistics (AT&L), reiterated that view in his August memo on actions to improve DoD competition.<sup>3</sup>

The defense department correctly asserts that competition is a powerful tool for achieving cost effective acquisition. It knows also that competition can encourage research and innovation; new services, products and uses; and increase quality, reliability and performance from suppliers. But these benefits

depend on a market sufficiently appealing to attract more than one bidder.

Competition is a critical strategy in DoD’s draft Better Buying Power 3.0 (BBP)<sup>4</sup> as it has been in each iteration. DoD sets strategic goals for competition, but consistently fails to achieve them. Competition rates have declined from 63% in 2008, to 57% in 2012.<sup>5</sup> *National Defense* magazine observed “It is not unusual to see dozens of contractor representatives turn up at an ‘industry day’ to hear about a new opportunity. But after the actual solicitation is published, very few might end up submitting bids”.<sup>6</sup>

Kendall attributes the decline primarily to decreasing defense budgets and fewer competitive opportunities, but it is more clearly DoD’s own acquisition policies that too often fail to attract bidders. The Defense Business Board (DBB) observed that “DoD lacks sufficient understanding of business operating models and drivers of innovation.”<sup>7</sup> DoD consistently fails to appreciate the connection between policy, DoD buyer behavior, and results. Predictably, competition rates continue to fall.

DoD’s approach continues to be self-centered – focusing on internal metrics, and establishing and enforcing policy. DoD’s mantra for competition fails to consider RAND’s conclusion that “In some cases (especially in the procurement of major systems where the nonrecurring cost is large), it may be less costly for the government to forgo competition and to rely on a single supplier.”<sup>8</sup> Competition takes time, and since in the defense acquisition monopsony, government is the only important buyer, and usually must fund the development of all potential

entries in a competition, it is not at all clear that competition saves money when nonrecurring costs are high or production runs are low. Even so, competition can serve other objectives such as keeping critical design teams and research in place to ensure a healthy industrial base, and a viable pool for future critical acquisition needs.

DoD's mantra for competition violates its own fundamental principle that the "first responsibility of the acquisition workforce is to think." Since the ultimate mission of acquisition is not achievement of a tertiary metric of debatable value, DoD must rethink competition as one of multiple tools available to equip DoD to effectively execute the defense of this country at the least possible cost in lives, time, and treasure.

## **Bidders are Essential to Competition**

The essential fact is that competition requires attracting at least two bidders willing to do business. Understanding this truth suggests the strategy to increase competition involves taking steps designed to enhance the appeal of the defense contracting environment and RFPs in ways that would increase the pool of potential bidders. The corollary to this conclusion is that policy which does not appeal to potential bidders will predictably decrease competition and diminish its promise.

Statute and regulation, acquisition processes, RFP terms, risk, market conditions, DoD behavior, and of course, investment return potential all have significant influence on a potential bidder's business case. That DoD has insufficient appreciation of these factors is clearly evident in its general approach, public statements, explanations of why it consistently fails to meet goals, and its memos and training materials for purchasing agents and acquisition professionals.

DoD's approach to competition is embodied within its BBP initiative, and on the Defense Procurement and Acquisition Policy (DPAP) website<sup>9</sup> which includes numerous memos, guidance and training materials defining DoD policy and providing guidance. However, these documents focus on policy awareness, and applicable statutes, regulations, processes and exceptions. A 2008 Office of Federal Procurement Policy memo<sup>10</sup> lists activities for removing impediments to competition, but none of these recommendations address ways for DoD to be a more attractive buyer, or to create an environment appealing to bidders. The bulk of recommendations are limited to exhortations for enhanced internal awareness, commitment, and requirements. DoD's latest guidance<sup>11</sup> released in August adopts the same approach and lists internal impediments to competition goals, but says nothing about acting to increase its appeal as a buyer, or incorporating measures within RFPs to improve the business case for prospective bidders. DPAP's required training material,<sup>12</sup> and Defense Acquisition University (DAU)<sup>13</sup> material on its website reflect the established approach. Even brief examination of these materials leads to the logical inference that the approach and policies DoD employs to increase competition, in fact actively diminish the appeal of competing for DoD business.

## Protection of Intellectual Property Is Essential to Competition

*“Our technological superiority is not assured, and in fact it is being challenged very effectively right now.”*

– Frank Kendall<sup>14</sup>

Protection of intellectual property (IP) is fundamental to the health, energy, and productivity of our commercial free enterprise system. Government protects that essential pillar of the general economy in law and recognition of patents, copyrights, licenses, proprietary data, trademarks, and industrial secrets. However, the dismantling of these protections within defense acquisition is a fundamental objective of DoD competition strategy, and is addressed in each policy, memo and training material on competition. The August, 2014 DoD Guidelines continues policy to obtain or compel the full spectrum of intellectual property from suppliers including proprietary technical data, computer software, patented technology, and license rights. DoD’s open intention for such data is “competitive activities”, where such data is transferred to third parties who use that data to compete with the innovator or creator, including perhaps in markets outside defense.

DoD has at least some inkling that targeting intellectual property may not always further its objectives. The August 2014 Guidelines include this admonition: “A caution on coercing greater rights to IP than necessary: ... a subcontractor may decline to sell its product to the Government’s prime contractor if it is required to provide more generous rights than it offers to commercial customers.”<sup>15</sup> The paragraph then recognizes that the government may have to accept an inferior source or develop an alternative at its own expense. However, DoD should further understand that this caution is applicable to acquisition practice for the prime contractor, and in all cases where it seeks to compel proprietary data. DoD over reach<sup>16</sup> through its policy on intellectual property makes it extraordinarily unappealing to creators and innovators, unquestionably chilling their incentive to invest in technology in the first place, and dissuading them from competing. As the guideline observes, this policy limits DoD’s access to the latest technologies, and to cost reduction opportunities.

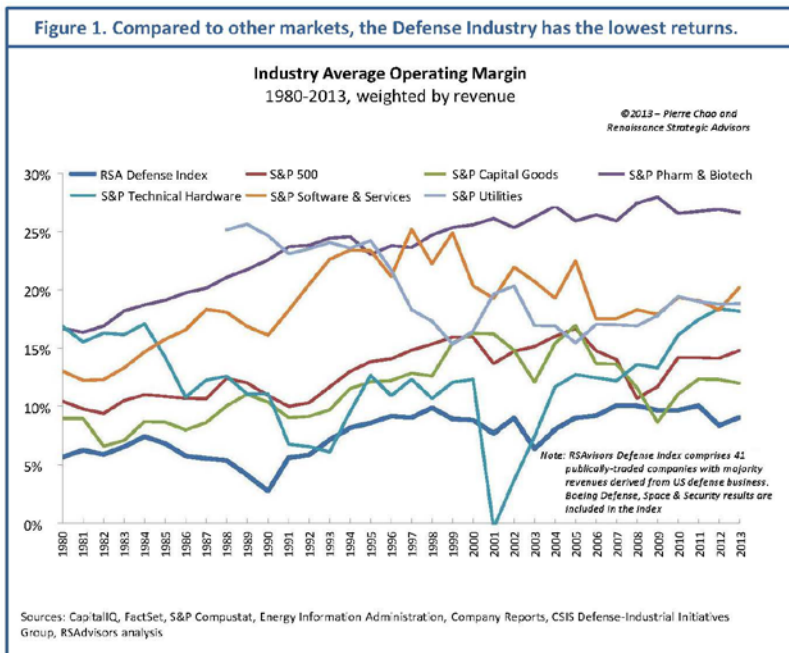
## Profit is Essential for Competition

Profit serves a variety of economic purposes, many extremely important to DoD reaching its objectives. It is a powerful motivator for innovation, technical investment, and efficiency, all critical to DoD’s objectives to save money, increase reliability, and dominate potential adversaries through technical superiority.

It is also critical to competition.

All companies exist to create value for their investors, and investors seek both competitive returns and stability. Undeniably, potential financial returns are fundamental to supplier decisions on where to compete. However, multiple sources show profit margins in defense acquisition on a long-term basis average about half that of the S&P 500.<sup>17</sup> The Defense Business Board’s report<sup>18</sup> earlier this year proved this once again, and concluded “Compared to other markets, the Defense industry has the lowest returns.” DoD’s annual report shows that even for its carefully selected list of companies, margins are considerably lower for defense companies compared to commercial sector firms.<sup>19</sup> Loren Thompson of the Lexington Institute writing in *Forbes* provides an excellent discussion of defense margins in comparison to business writ large and concludes “...the idea [that] weapons makers are generating excess profits is laughable.”<sup>20</sup> Review of Figure 2 and typical industry returns easily

examined from Internet sources makes it easy to understand another industry expert's comment that "Lockheed would do better for shareholders making diapers or burgers rather than the world's best fighter."<sup>21</sup>



In terms of return industry receives for what it provides, DoD has clearly received good value from its purchases for a long time.

This indisputable conclusion calls into question the enormous resources and expense of government regulation and policy overhead designed to identify and control profit margins. Needless to say, low margin potential relative to other market choices is not a compelling reason to compete for government contracts.

Like competition, profit policy logically applied is indispensable to meeting DoD objectives for mission capability, performance, best value, cost reduction, innovation and access to technology.

Properly constructed contracts allow buyers to tailor incentives to achieve any supplier behavior that meets the DoD's outcome objectives.

The unthinking approach to profit policy is to minimize it at any cost. Thoughtful profit policy incorporates the careful analysis of DoD's own acquisition objectives including:

- How many willing bidders do you want to attract for effective competition?
- How responsive do you need your supplier to be when surprises appear that are not on contract?
- How much innovation do you need, and how much independent investment, research and development must be encouraged to maintain a technological advantage?

Defense contracts can be very large, but contract size alone says nothing about what benefit, if any, a supplier accrues from a contract. Yet, many assume that it does. This distortion drives profoundly dysfunctional profit policy which undermines DoD's own goals to lower costs and attract great suppliers. The message here is not whining that defense companies should make more money, but instead to recognize that companies have choices about what markets to pursue, what research to invest in, and what problems to solve. If DoD wants the best minds and companies to solve DoD's problems, invest in DoD research, and compete for DoD business, it must create incentives for companies to do so. Otherwise, companies, especially the best companies with more options, will choose another market.

Despite leadership denials of a war on profit, the visible, practical DoD profit policy is to minimize profit apparently at any cost. In testimony before the House Armed Services Committee (HASC), Pierre Chao, Senior Associate with the Center for Strategic and International Studies, summed it up elegantly: "Culturally we have

evolved to a point where the system would rather pay \$1 billion and 5% profit for a defense good, than \$500 million and 20% profit."<sup>22</sup>

## Good RFPs are Essential to Competition

Bidders will respond to government RFPs that satisfy an acceptable internal business case, and where proposal costs, which can be considerable, are in proportion to risk if their proposal is ultimately uncompetitive. DoD's mantra of competition, however, does not factor into the bidders business case.

Contract length is an important part of the bidder's business case. Contracts of sufficient length allow suppliers to recover proposal and start-up costs, and capital investments that enable improvements in contract execution leading to improved outcomes and lower costs. However, DoD policy has trended to increasingly shorter contracts in a misguided effort to increase opportunities for competition. This can lead to permanent proposal activity which increases overhead, interferes with performance, and makes recovery of investment impossible. It also heavily and unnecessarily increases the workload of an acquisition workforce stretched to capacity. The greater the technological and capital requirements for proposing and starting-up a contract, the longer the period-of-performance must be if the business case is to make sense for anyone other than the incumbent. For anyone including the incumbent, the longer the period-of-performance, the greater risk a bidder can take in providing a low cost bid, since time and his independent investment can be employed to enable his lowest competitive price.

Contract type appropriate to the product and stage of acquisition has an important impact on results achieved. BBP initially promoted Lowest Price Technically Acceptable (LPTA) contracts, but these contracts encountered significant resistance and DoD emphasis for this contract has wisely diminished. These contracts were widely panned as a "race to the bottom" but a more insightful commentary, known as "The Common Law of Business Balance", attributed to 19<sup>th</sup> century English artist, critic, socialist, and philanthropist John Ruskin, describes this more descriptively and elegantly.

There is hardly anything in the world that some man cannot make a little worse and sell a little cheaper, and the people who consider price only are this man's lawful prey. It's unwise to pay too much but it is worse to pay too little. When you pay too much, you lose a little money – that is all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the thing it was bought to do. The common law of business balance prohibits paying a little and getting a lot – it can't be done. If you deal with the lowest bidder, it is well to add something for the risk you run. And if you do that, you will have enough to pay for something better.

RFPs may require supplier costs to be certified ("FAR 15"), or justified by other than certified cost and pricing data ("FAR 12"). Strictly commercial purchases may oblige the government to conduct its own market analysis. The basis of the RFP and proposal, and the relevant regulatory burden and overhead are tremendously important to both qualifying and attracting potential suppliers into the bidding pool.

An important example here is a potential bidder with a commercial-off-the-shelf (COTS) product, a commercial product modified slightly for government use (commercial "of a type"), or a product once vibrant in the commercial world but later used only by government. If an RFP requires extensive cost and pricing information whether certified or not, a potential bidder may be unable to supply such data or have to incur great expense to change his accounting system which raises the costs of producing all his products, a prospect that may not be

acceptable. In any case, cost and pricing information is always sensitive, protected information in business. Both reasons tend to diminish the competitor pool.



Items such as laptops and mobile phones which support warfighters can be modified commercial-off-the-shelf products. (Image: Wikimedia)

Another approach DoD has favored recently is breaking up complex system-level acquisition of procurement and services to create additional opportunity for competition at the subcontract level. The bulk of most prime level major acquisitions is often subcontracted by the prime to take advantage of highly specialized expertise. DoD believes forcing competition lower into the supply chain saves money. In reality, this approach ensures a continuous churn in the supply chain, ongoing inefficiencies coming from relationships constantly broken and reestablished, and network inefficiency introduced at the expense of system-level optimization. Overall system-level delivery performance, and possibly safety can be impacted.

Original Equipment Manufacturers (OEMs) know through experience that switching sub-contractors for nominal cost savings can lead to expensive, embarrassing, and sometimes safety related issues. Prime contractors minimize these issues by establishing long-term relationships with subcontractors and working together to resolve issues, including pricing, as they arise. This is a practice common in commercial business, but not understood by DoD. DoD's move to sectionalize system level contracts into multiple subcontracts requires expertise in the system being acquired to be significantly greater for their approach to work, and the contracting and management burden assumed by DoD is tremendously increased. But fundamentally, this approach assumes that DoD can manage the supply chain, including the increased burden DoD has assumed, more efficiently than the system OEM. Given the Defense Business Board report referenced in the opening, the necessary understanding of the system and business principles may not exist,<sup>23</sup> which suggests outcomes based on this policy are unlikely to achieve the results intended.

## Difficult Buyers Discourage Competition

If the objectives of competition are to be achieved, one must examine the underlying problem that government distrusts and dislikes the industries on which it relies. Examination is unavoidable because this problem has had tremendous implications for how defense acquisition is structured, how it performs, and what it ultimately costs. A recent DAU survey found "government employees see industry as merely uncommitted vendors, motivated only by profit; as a result, industry must be managed harshly."<sup>24</sup> The American public and the media are not generally friendly to industry either. Brookings noted, "We are accustomed in the American public debate to praising men and women in uniform, and yet we often ignore or even pillory those who equip and support them."<sup>25</sup>

Government and DoD dislike of the industries on which they rely has translated into acquisition policy based on distrust<sup>26</sup> and an "accretion of laws, regulations, reporting requirements, and mandated procedures that are choking the system."<sup>27</sup> All of this results in a system that discourages competition, and results in products that

cost more than they need to, take too long to deliver, and too often are obsolete by the time they become operational.

It is true that individual companies or contracts misstep from time to time, but the snipe hunt for rampant fraud, waste and abuse is largely unwarranted. The 1986 Packard Commission found that “The nation’s defense programs lose far more to inefficient procedures than to fraud and dishonesty. The truly costly problems are those of overcomplicated organization and rigid procedure, not avarice or connivance.”<sup>28</sup> The commission also found that “nothing merits greater concern than the increasingly troubled relationship between the defense industry and government”. Things are little changed.<sup>29</sup>

While DoD buys as much as \$400 billion of goods per year<sup>30</sup> from the defense industry, documented action resulting in compensation back to the government is one to two percent or less per year.<sup>31</sup> Since acquisition overhead is estimated from 30% to 40% of acquisition dollars,<sup>32</sup> the excessive oversight and procedure sapping the system is clearly wildly out of proportion to the issue. Some overhead is normal, of course, but this level suggests great opportunity to significantly reduce the cost, complication and time of the acquisition system, and the potential to mitigate a significant portion of current defense budget pressure.

The government is a monopsony buyer, and it also has the ability and propensity to make the laws in accordance with its perceived interest alone, often changing the game in the middle, and often without appreciating predictable side effects or the potential to undermine its own objectives. “It can and does cancel contracts for convenience; change requirements, purchase quantities, or schedules at will; demands proprietary information even for commercial products for distribution to competitors; and dictates contract terms and controls margins.”<sup>33</sup> A fundamental objective of business is to seek and grow competitive advantage, while the objective of the government policy and practice is to erase it, artificially if necessary.

The HASC documented many of the difficulties faced by potential suppliers to the government in its 2012 report *Challenges to Doing Business with the Department of Defense*. In it, the HASC details the many ways in which government dissuades potential suppliers from risking business with the government. And each of these ways represents a barrier to competition, and all of its promise.

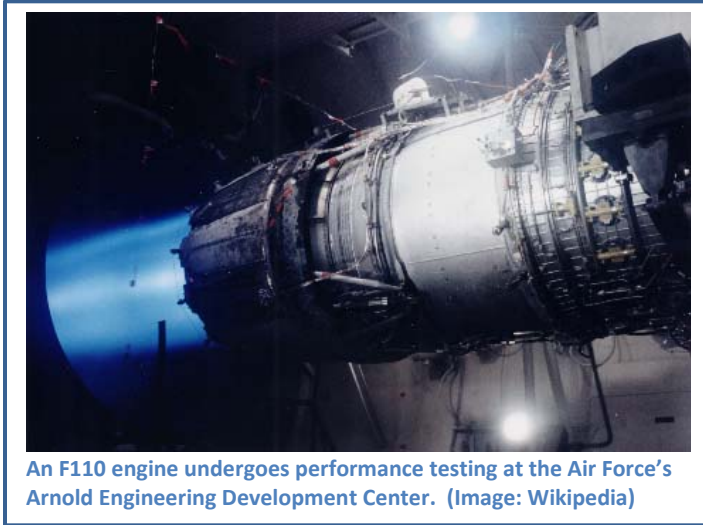
... complexity of the defense acquisition process, the constantly changing rules of the game, the regulatory burden associated with government contracts, and the business risks associated with defense contracts discourage many companies.<sup>34</sup>

## Implementing Effective Competition

The DoD competition Guidelines cite the “Great Engine War” of the 1980’s,<sup>35</sup> which pitted two fighter engine companies in competition to power F-15 and F-16 aircraft as an example of what competition can achieve. The Guidelines credit this competition with \$2-\$3 billion in savings over 20 years, improvements in reliability, contractor performance and other benefits. Yet, RAND examined these kinds of competitions and concluded “It is not self-evident that a second production source will produce savings – especially when nonrecurring costs are large.”<sup>36</sup> Nonrecurring costs for fighter engine development are indeed large, and when both entries were adopted into service, permanent life cycle costs were increased. While performance and reliability improvement was real, the claimed savings relies on speculation about progress in the program in the absence of a second engine. To credit claimed improvements to competition alone exposes a serious misunderstanding of the nature of



development of high technology products, a lack of appreciation of the operational problems introduced with two incompatible products, and an unfounded confidence in the speculative calculation of a path not taken. That this is true is attested to by the staunch refusal of two Presidents and two Secretaries of Defense from entertaining any prospect of a similar decision when choosing the engine for the current F-35 fighter.



An F110 engine undergoes performance testing at the Air Force's Arnold Engineering Development Center. (Image: Wikipedia)

Every high-tech program, whether in national defense or not, follows a well-defined life cycle. On introduction, they may or may not immediately meet the lofty performance goals they were designed for, but neither have they yet achieved their ultimate potential in low cost and reliability whether or not competition is part of the ongoing life cycle. The manufacturing learning curve and operational experience would have achieved significant improvement over time in all aspects cited by the Guidelines for either engine. However, low volume, split in half with two engines in production, unavoidably slowed cost reduction for both engines. Coupling this with nonrecurring cost for two engines rather than one,

and doubling the operational requirements, calls into question whether competition alone is responsible for any of the improvements claimed.

Another weakness inherent to this particular type of competition (two competitors, split buy) is the behavior it incentivizes and the operational outcomes it predicts. Todd Harrison provides a thorough analysis of the weaknesses in a number of competition strategies in his paper: *The Effects of Competition on Defense Acquisitions*.<sup>37</sup> He summarizes by saying "the cure of competition can sometimes be worse than the disease."

Split buys dramatically slows the manufacturing learning curve by splitting production and reducing quantities, especially for low-volume items such as ships and aircraft. The Capital investment required is obviously doubled by the necessity to keep two, less efficient supply chains active. But more troubling may be the inherent incentive structure operating which may further increase costs. In a split buy, one or both competitors may be satisfied with losing the competition and accepting the smaller share, but achieving better returns through a higher margin losing bid. Thus, on top of the inherent inefficiencies, incentives of this kind can actually drive costs higher, perhaps dramatically higher if both competitors adopt such a strategy. Two versions then create an operational nightmare, doubling everything involved – supply chain, inventory, training, management, technical problems, and so on. Multiply this problem by extending this acquisition philosophy to avionics, landing gear, and other systems or part of a weapon system and this approach becomes clearly unsustainable for cost, complexity, safety and mission.

Better examples of effective competition techniques in practice are the acquisition of the Joint Direct Attack Munition (JDAM), the Wind Corrected Munition Dispenser (WCMD), and the Joint Air-to-Surface Standoff Missile (JASSM). In another RAND report,<sup>38</sup> the success of these acquisitions is attributed to a commercial-like program structure, including competition. These programs demonstrated savings of up to 65%. An important difference compared to the engine war competition is the long production run for all of these examples. Despite

these and other examples from the RAND report, commercial-like program structure is not part of contemporary discussion of acquisition reform, but should be.

Implementing effective competition that achieves more than compliance with a metric of dubious value requires more thought than promoting a mantra. It is critical to think about policy that establishes an acquisition environment and a contract that both appeals to bidders, and produces the outcomes expected.

## When Government Rejects Competition

As critical as strategically applied competition is to achieving DoD goals for performance and cost reduction, it is abandoned without examination for functions earmarked for DoD employees. For all such functions, the lack of competition, and the lack of the profit motive are serious impediments to the increased performance, entrepreneurial energy, and the motivation for innovation and efficiency that these tools provide DoD when accessing the defense industry.

The 2001 Federal Activities Inventory Reform (FAIR) Act showed that 50% of public sector jobs fall into the areas that might be competed. As many as 340,000 military personnel are performing commercial activities.<sup>39</sup> Numerous studies<sup>40</sup> have concluded that when such functions are competed in public/private competition, an average savings of 30% are achieved, no matter who wins. As Jacques Gansler, former Under Secretary for Defense (AT&L) tells us, “the presence of competition creates the previously missing incentive for government providers to significantly improve processes that lower costs and increase performance.”<sup>41</sup>

With good reason, the Department of Defense should maintain at least a portion of many functions organically. A career path for growing necessary experience and reserve capacity is strategically vital in defense, but by statute and simple preference, DoD performs the bulk of potentially competed functions organically – unexamined through business case analysis or tested by competition. As a result, DoD forfeits potential benefits of billions of dollars<sup>42</sup> at the same time it demands these same savings through competition in the defense industry. One has to question the duality of DoD’s passionate campaign for competition within the defense industry while simultaneously abandoning competition for commercial functions performed by DoD.

## Why Suppliers Do Business with Government

The previous discussion might lead one to infer that little reason exists for companies to contract with government, but many do for a variety of reasons, not all of which survive a persistently unfriendly environment. But enough do to impart to DoD an unwarranted confidence that there will always be a ready industrial base prepared to provide DoD whatever it may require to execute its strategic objectives.

Some companies consider defense a core competency, and a source of competitive advantage against those without key defense experience. The bulk of their revenue is defense, and they have accounting systems and organizational structure and processes tuned to defense acquisition requirements. They have highly specialized skills in defense related technology, and employees who love working in aerospace, naval shipping or other defense products. They, their investors, and the market are familiar with the comparatively low margin in defense but they like the sector and feel patriotic to be part of the national defense. Some simply have a long tradition of

service to the country. Many of these companies, however, are increasingly diversifying, and many already have strong commercial businesses.

For other companies, defense is a strategic hedge against weakness in their commercial markets, a means of filling and level loading capacity, a way to share fixed costs across an expanded product line, or a way to keep critical design capability active. Pride and patriotism are often real and important factors as well. Contractors comprised half the force in Iraq and Afghanistan. Many also sacrificed.<sup>43</sup>

Many companies doing business with the government today will continue to do so, and some new companies will join the defense industry, but some are diversifying away and others are finding the reasons they worked in defense are increasingly less appealing. DoD recognizes that important investment, innovation, and energy is happening in the commercial marketplace, even for companies with a historic tradition in defense. If DoD is to maintain a willing industrial base and lure in new companies with groundbreaking technologies now working exclusively in the commercial world, it needs to apply more than its mantra, and instead create an environment, and a track record of working with and respecting industry in a way that satisfies their business cases in order to meet DoD goals.

## Alternative to Competition – Partnership

Despite the duality, DoD, though sole source buyer and lawmaker, is loath to accept the prospect of a sole source provider. DoD fears “vendor lock”. Contractors endure buyer lock. Government discomfort drives continuous layering of intrusive oversight, and policy designed to compel disclosure of anything that might be provided to others to artificially fabricate competition. But as a practical reality, many weapon systems are so intricate, specialized, or capital intensive to produce and maintain, that few, and possibly only a single source is capable of production and sustainment. Usually after much anguish, DoD may offer partnership for sustainment, though its view of partnership is predictably different than characteristic of business outside of government.

Outside government, partnership is cemented on more or less equal terms and for mutual benefit. There is a measure of permanence, which if not general, is intended for the duration of a specific purpose. Partners are bound to discontinue looking for greener grass. There is give and take. There is trust and respect. There is



C-17 Globemaster team won the 2012 Secretary of Defense Performance-Based Logistics award. (Image: Wikimedia)

internal transparency. There is the principle of working through difficulty privately and mutual support publicly.

But this definition does not fit government’s view of partnership. Instead, partnership is a temporary convenience, tending to protect only government interests, with little, if any, commitment to industry partners. Without that commitment, protections are inevitably erected on both sides, mistrust can never really be mitigated, and the mutual benefits that partnerships achieve outside of government rarely come to fruition.

Public/private partnerships (PPPs) exist, and many are successful. Partnerships in the form of

performance-based logistics (PBLs) have been particularly successful. Project Proof Point has demonstrated that 12 of 14 PBLs with cost reduction incentives embedded in their contracts delivered price-to-service reductions.<sup>44</sup>

PBLs are constructed to align incentives of both government and supplier. Instead of contracting for a specific number of service actions, such as a component overhaul, a PBL is a contract for a specific outcome, such as percent mission capability for an aircraft, and billing is typically done based on use, such as flight hours. But despite official DoD policy preference for performance-based logistics over other contracting vehicles, PBL contracting actions and active PBLs continue to decline. While Project Proof Point shows us “a conservative estimate of savings that could result from broadly transitioning to PBL sustainment across the DoD ranges from 10 percent to 20 percent – every year”,<sup>45</sup> implementation of PBLs continues to be troubled by a lack of understanding and other obstacles. Since annual DoD logistics spending is about \$170 billion,<sup>46</sup> potential savings equate to \$17-\$34 billion annually. Because PBLs are not being employed as often as appropriate, DoD pays more for sustainment and experiences poorer readiness than necessary. In this challenging fiscal and budget environment, that means choices are being made that result in a diminished national defense, placing warfighters at risk.

## Rethinking Competition in Defense Acquisition

After decades of acquisition reform and hundreds of official studies and reports, the acquisition system remains “widely considered to be dysfunctional.”<sup>47</sup> A new effort is underway in Congress and in the Pentagon responding to deep financial pressure and continued criticism of the acquisition process. The Senate recently released a compendium of views by leading acquisition experts<sup>48</sup> which disappointingly summarized its recommendations simply as the need to enhance the acquisition workforce and to better involve the service chiefs. Frank Kendall’s contribution to the compendium said that only “acquisition improvement” is needed rather than “acquisition reform”. However, this panel was government heavy, and the recommendations of contributors with broader comments did not find their way to the compendium’s recommendations. The conclusion of the Defense Business Board that “DoD lacks sufficient understanding of business operating models and drivers of innovation” was not reflected in the Senate’s compendium summary.

The 1984 Packard Commission report, however, is as relevant today as it was the day it was released. The consistent principle across the decades is government conviction that industry is unworthy of trust, and DoD’s misplaced confidence that it understands business and how to incentivize it. But, DoD’s internal focus on competition which does not consider the need to improve its appeal as a buyer, its policy to extract intellectual property from creators and innovators, and its assault on profits, all suggest that if anything is to be achieved in acquisition reform, DoD’s fundamental approach needs rethinking.

DoD consistently fails to appreciate the connection between policy, DoD buyer behavior, and results. In the press briefing for the release of the 2014 Performance of the Defense Acquisition System Report, Frank Kendall said “... many of the things that we have tried from the data, from the statistics last year and this year, don’t seem to be having much of a discernible effect.”<sup>49</sup> Predictably, competition rates continue to fall.

The Department of Defense correctly makes competition an important part of its acquisition strategy, but it forgets that successful competition requires a reasonable buyer, and an attractive business proposition if two or more potential suppliers are to be tempted into vying for its business. But Congress and DoD have acted only to extend policy that frustrates its ability to achieve the benefits that mastery of competition promises. They cannot

see that competition exists and works not only at the discrete RFP level, but also at the product and market level, and across time, and that it can exist and work within a properly constructed contract. DoD continues to be a cantankerous buyer, writes RFPs with terms and conditions that dissuade potential bidders, fails to protect creators of innovation and intellectual property, and requires compliance with onerous policy and legislative requirements.

The Implementation Directive for Better Buying Power 2.0 wisely admonished that “The first responsibility of the acquisition workforce is to think”,<sup>50</sup> but that principle has passed with BBP 3.0. One of the primary objectives of BBP in each iteration is to increase the professionalism of the acquisition workforce, and this is certainly needed. But there is tremendous potential to embrace new principles to make competition, profit policy, and relationships work for DoD, not just to improve a questionably relevant metric, but to significantly reduce cost to the taxpayer in this time of tremendous budget pressure, to deliver better capability to the warfighter, and to strengthen the industrial base.

The Department of Defense has always simply assumed that the capability and interest would be there to execute whatever strategy it has adopted, but unless DoD can achieve an enlightened understanding of business operating models and drivers of innovation, it may find not just that it is paying more than it needs to or that it is sole sourcing more, but that it is in danger of having a critical need with no one ready to help.

*“The more attractive the Government can make itself as a buyer, the more likely it is that world-class sellers will enter into contracts with the Government, that favorable terms and conditions will be negotiated, and that lower prices will be paid.”*

– DoD Commercial Item Handbook<sup>51</sup>

## Acronyms

AT&L	Acquisition, Technology and Logistics
BBP	Better Buying Power
COTS	Commercial Off The Shelf
DAU	Defense Acquisition University
DBB	Defense Business Board
DoD	U.S. Department of Defense
DPAP	Defense Procurement and Acquisition Policy
FAIR	Federal Activities Inventory Reform
HASC	House Armed Services Committee
IP	Intellectual Property
JDAM	Joint Direct Attack Munition
JASSM	Joint Air-to-Surface Standoff Missile
LPTA	Lowest Price Technically Acceptable
OEM	Original Equipment Manufacturer
PBL	Performance-Based Logistics
PPP	Public Private Partnership
RFP	Request for Proposal
WCMD	Wind Corrected Munition Dispenser

## Additional References

- Norman Augustine, [\*Augustines's Laws\*](#), American Institute of Aeronautics and Astronautics, 1997.
- Sarah Chacko, [\*DoD report seeks return to A-76 job competitions\*](#), Federal Times, July 19, 2011.
- Jay DeFrank, [\*Budget deficits don't have to mean a weak defense\*](#), The Hill, October 16, 2014.
- Sydney J. Freedberg Jr., [\*'Put A Match To It' And Scrap DoD's Buying Rules: Top Pentagon Advisor EXCLUSIVE\*](#), AOL News, August 30, 2012.
- Dan Goure, [\*Competitive Defense Contracting: When It Makes Sense \(and When It Doesn't\)\*](#), The Lexington Institute, June 13, 2013.
- William E. Greenwalt, [\*Five Factors Plaguing Pentagon Procurement\*](#), American Enterprise Institute, December, 2013.
- Arthur Herman, [\*Freedom's Forge\*](#), Random House, 2012.
- William Lazonick, [\*What's "Perfect" About Perfect Competition? A Prosperous Economy Needs Innovators.\*](#) The Huffington Post, November 11, 2011.
- Steve Mills, [\*We don't dance well\*](#), Defense AT&L, March-April, 2010.
- Loren Thompson, [\*Five Reasons The Pentagon's Innovation Push Won't Work\*](#), Forbes, September 25, 2014.
- [\*From Crisis to Opportunity\*](#), 2013 PSC Leadership Commission Report, Professional Services Council, 2013.

## Cover Image

F-35 piloted by Mr. Elliott Clemence, returns to PAX following clean wing strategic aerial refueling, 12 Sep (Credit: Andy "Bones" Wolfe).

## End Notes

- <sup>1</sup> Frank Kendall, Under Secretary of Defense, [Implementation Directive for Better Buying Power 2.0](#), Memorandum, April 24, 2013.
- <sup>2</sup> [Performance of the Defense Acquisition System](#), 2014 Annual Report, U.S. Department of Defense, June 13, 2014.
- <sup>3</sup> [Guidelines For Creating and Maintaining a Competitive Environment for Supplies and Services in the Department of Defense](#), Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, August 2014.
- <sup>4</sup> Frank Kendall, [Better Buying Power 3.0 Interim Release](#), September 19, 2014.
- <sup>5</sup> [Defense Contracting – Actions Needed to Increase Competition](#), [GAO-13-325](#), U.S. Government Accountability Office, March 28, 2013.
- <sup>6</sup> Sandra Erwin, [Pentagon Seeks New Suppliers, Looks to Become More Business-Friendly](#), National Defense Magazine September 7, 2014.
- <sup>7</sup> [Innovation - Attracting and Retaining the Best of the Private Sector](#), Defense Business Board, July 2014.
- <sup>8</sup> Mark V. Arena and John Birkler, [Determining When Competition Is a Reasonable Strategy for the Production Phase of Defense Acquisition](#), RAND Corporation, 2009.
- <sup>9</sup> Defense Procurement and Acquisition Policy (DPAP) [website](#) on competition, at <http://www.acq.osd.mil/dpap/cpic/cp/competition.html>.
- <sup>10</sup> [Effective Practices for Enhancing Competition](#), Attachment A: Highlights of Agency Competition Initiatives for Fiscal Year 2007 U.S. Office of Management and Budget, July 18, 2008.
- <sup>11</sup> Guidelines, *op. cit.*
- <sup>12</sup> [Enhancing Competition Awareness in DoD](#), U.S. Department of Defense, updated May 5, 2010, p. 33.
- <sup>13</sup> [USD \(AT&L\) Better Buying Power Initiative: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending, Removing Obstacles to Competition](#), Defense Acquisition University, August 25, 2011.
- <sup>14</sup> Frank Kendall, [Better Buying Power 3.0 Interim Release](#), *op. cit.*, Page 2.
- <sup>15</sup> Guidelines, *op. cit.*, p. 11.
- <sup>16</sup> Government pressure for innovator's intellectual property is unabated. The 2012 NDAA revised 10 U.S.C. 2320 to allow the government to compel production of intellectual property generated **or used** the in the performance of a contract for the:
- reprocurement, sustainment, modification, or upgrade (including through competitive means) of a *major system or subsystem thereof, a weapon system or subsystem thereof, or any noncommercial item or process*," **AND** pertains to an item or process developed in whole or in part with Federal funds; **OR** is necessary for the segregation of any item or process from, or the reintegration of that item or process (or a physically or functionally equivalent item or process) with, other items or processes.
- "Segregation" and "reintegration" are not yet defined but appear likely to be interpreted extremely broadly. This right can be interpreted to allow government access to design systems, historical data and research used in a product design. If government funding is used to develop any part of an item, this section gives the government rights to the entire design. Clearly innovators will be reluctant to offer products and services on such terms, and suppliers of existing products will be similarly reluctant to accept government funding for improvements. This new legislation is very damaging to DoD's ability to lure potential bidders into competition, and perversely will prevent DoD access to the best technology.
- <sup>17</sup> Numerous sources show the defense industry accepts much lower margins than business averages. Media sensationalism aside, no reputable study known to this author concludes that defense industry margins are even comparable to typical business averages, though it does outperform some selected business segments.
- [The Aerospace and Defense Industry in the U.S. - A financial and economic impact study](#), Deloitte Development, LLC, March 2012.
    - "The average operating margins in the aerospace and defense industry were 42% lower than the average for the total U.S. industry in 2010."
  - [Aerospace & Defense - 2011 year in review and 2012 forecast](#), PricewaterhouseCoopers LLP, May 2012.
    - "Defense contractor profitability is typically a little more than half of the DJIA"
  - [18th Annual Government Contractor Survey Highlights Book](#), Grant Thornton, January 2013.
    - "60% of participants reported either no profit or profit in the 1-5% range"
  - [Defense Department Profit and Contract Finance Policies and Their Effects on Contract and Contractor Performance](#), Institute for Defense Analysis, February 2009.
    - Operation margin is half the S&P 500
  - One need not accept these reports and calculate the comparison independently. Simply get the defense industries [top 100 list](#) from Defense News, and a list of the Dow 30 companies, and compare the profit margins using Google or Yahoo Finance. The results may surprise you.
- <sup>18</sup> [Innovation](#), *op. cit.*, p. 39.
- <sup>19</sup> [Performance of the Defense Acquisition System](#), *op. cit.*, p. 79.
- The 2014 Annual Report shows average DoD operating margin of 9% each year between 2009 and 2013. Commercial margins were calculated from selected companies covering capital goods, engineering services (civil engineering), and automobiles. This comparison showed average commercial margins of only 6% in 2009, but 10%-11% for the remainder of the period. For capital goods, the margins are much higher at 14%.
- <sup>20</sup> Loren Thompson, [Defense Industry Profits Are Not Impressive](#), Forbes, July 24, 2013.
- <sup>21</sup> Dan Goure, [F-35 Program Manager Is Being Too Hard On His Team-Mates](#), Lexington Institute, February 27, 2013.

<sup>22</sup> Pierre A. Chao, [Twenty-five Years of Acquisition Reform: Where Do We Go From Here](#), Testimony before the House Armed Services Committee, October 29, 2013.

<sup>23</sup> Apart from the DBB report (Endnote vii), GAO cites weapon system acquisition and supply chain management, and contract management as three elements of its biennial report [GAO-11-278 HIGH-RISK SERIES An Update](#). This report identifies areas in government operations that are high risk due to greater vulnerabilities to mismanagement, need for transformation, or fraud waste and abuse. This report also cites DoD struggling with financial management, business systems modernization and other areas.

<sup>24</sup> Steve Mills, Scott Fouse and Allen Green, [Creating and Sustaining An Effective Government-Defense Industry Partnership](#), *Defense AT&L Magazine*, July 2011.

<sup>25</sup> [The National Security Industrial Base: A Crucial Asset of the United States, Whose Future May Be in Jeopardy](#), Brookings, February 2011.

<sup>26</sup> [Defense Acquisition Performance Assessment – Executive Summary](#), Assessment Panel of the Defense Acquisition Performance Assessment Project, Lt. Gen. Ronald Kadish, USAF (Ret), Panel Chairman, December 2005.

"DoD management model is based on a lack of trust - oversight is preferred to accountability."

<sup>27</sup> John Hamre, ["An Honest Look at the "Military-Industrial" Complex"](#), CSIS Memorandum, Center for Strategic and International Studies, May 10, 2013.

<sup>28</sup> The President's Blue Ribbon Commission on Defense Management, Packard Commission, David Packard, Chairman, June 30, 1986.

<sup>29</sup> Today's important role models, The President and senior military leaders, continue the history of public enmity for industry. President Obama's inauguration in 2009 was followed closely with his "culture of corruption" speech. Government officials, rarely, if ever, acknowledge the role that government rules, bureaucracy or behavior plays in cost or performance issues in defense programs. The F-35 program has been a particular target.

[Pentagon Escalates Rhetoric Against Lockheed Over F-35](#), Bloomberg News, February 28, 2014.

[General gives stinging rebuke to contractors](#), The Hill, February 10, 2011.

<sup>30</sup> ["Defense News Top 100 for 2014,"](#) *Defense News*, August 4, 2014. Comprehensive annual data since 2000.

<sup>31</sup> The DoD Inspector General [reports](#) to Congress semi-annually. Since reported recoveries to the government usually amount to less than \$2 Billion, the annual percentage is very small compared to total acquisition.

<sup>32</sup> John Hamre, *op. cit.*

<sup>33</sup> Scott Chandler, [Meeting the DoD Sequestration Level Cost Cuts Without Cutting Strategy, Programs or Readiness](#), Lexington Institute, April, 2012.

<sup>34</sup> [Challenges to Doing Business with the Department of Defense](#), House Armed Services Committee, March 19, 2012.

<sup>35</sup> Initial operational difficulties with the F100 engine arose because its performance was "so vastly superior to any predecessor that it changed combat tactics and the training regimen." ([The Air Force and the Great Engine War](#), Robert W. Drewes, National Defense University Press, 1987). The engine manufacturer demonstrated it met design requirements through development testing but actual operational demands incurred through the new tactics and performance newly possible resulted in thermal cycling (full-throttle transients) six times greater than expected. Operational reliability suffered accordingly. Adapting the engine design to operational reality took time and additional development funding. This pattern is common in many development programs when the new technology delivers new, unanticipated capability. An additional, different engine design from another manufacturer was developed at great expense and experienced its own set of development issues. With both in service and production, duplicate support infrastructure is required to this day. Reliability and service naturally improved for both engines over time as designs adapted to operational reality.

This competition produced two, non-interchangeable major aircraft engines with redundant support infrastructure and operational characteristics. Imagine the management and operational difficulties if other major components such as avionics, weapons, landing gear, or aircraft structures were also similarly, non-interchangeable dual designs.

This case is often used as an example of the benefits of competition but it has more to say about government/industry relationships and the difficulties attendant to our arcane acquisition system. One cannot know with precision what performance and cost would have resulted if the second engine had not been developed. But as noted in the main piece, from lessons from this acquisition experience and against tremendous pressure due to the parochial interests of some congressional leaders and the competing engine manufacturer, two presidents and two consecutive Secretaries of Defense adamantly demanded a single engine design for the F-35.

<sup>36</sup> Mark V. Arena and John Birkler, *op. cit.*, Page 3.

<sup>37</sup> Todd Harrison, [The Effects of Competition on Defense Acquisitions](#), 2012 DAU Research Symposium, 2012.

<sup>38</sup> Mark Lorell and John C. Graser, [An Overview of Acquisition Reform Cost Savings Estimates](#), RAND Corporation, 2009.

<sup>39</sup> [Reducing Overhead and Improving DoD's Business Operations](#), Defense Business Board, July 22, 2010.

<sup>40</sup> Scott Chandler, *op. cit.* end note 20.

<sup>41</sup> Jacques Gansler, [Moving Toward Market-Based Government: The Changing Role of Government as the Provider](#), IBM Center for The Business of Government, June 1, 2003.

<sup>42</sup> A simple calculation would be to accept the FAIR Act estimate of 50% of DoD jobs could be competed and apply the 30% demonstrated benefit of competition to the \$80 Billion per year annual compensation for DoD civilian employees yields \$12 Billion. However, savings from competition would be realized through sources other than compensation alone.

<sup>43</sup> Steven L. Schooner, Collin D. Swan, [Dead Contractors: The Un-Examined Effect of Surrogates on the Public's Casualty Sensitivity](#), *Journal of National Security Law & Policy*, April, 2012.



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<sup>44</sup> John Boyce, Allan Banghart, [Performance Based Logistics and Project Proof Point](#), Defense AT&L, March-April 2012.

<sup>45</sup> Boyce, Banghart, *ib. id.*

<sup>46</sup> *10 Myths About Performance Based Logistics*, AIA, presentation at the 2013 Product Support Conference, December 11, 2013.

<sup>47</sup> [Getting to Best: Reforming the Defense Acquisition Enterprise](#), BENS, July, 2009.

<sup>48</sup> [DEFENSE ACQUISITION REFORM: WHERE DO WE GO FROM HERE? A Compendium of Views by Leading Experts](#), October 2, 2014.

<sup>49</sup> [Department of Defense Press Briefing on the second annual Performance of the Defense Acquisition System Report, a Better Buying Power update and the Superior Supplier Incentive Program](#), June 13, 2014.

<sup>50</sup> Interestingly, BBP 3.0 changes this maxim to “Achieving Dominant Capabilities through Technical Excellence and Innovation”.

<sup>51</sup> Commercial Item Handbook (Version 1.0), Office of Secretary of Defense, Acquisition, Technology, and Logistics, November 2001.

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