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Changing Acquisition Culture: What and How

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ABOUT THE AUTHOR

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EXECUTIVE SUMMARY

A common refrain throughout many proposals to improve the defense acquisition business is the need to change the culture, particularly within the Department of Defense itself. Nevertheless, such proposals tend to focus on legislative or process-oriented changes, such as identifying preferred contract types or instituting new oversight and review steps in the already complex, oversight-heavy acquisition process. Largely absent from these process-centric reform efforts is a concrete description of what the defense acquisition community's culture should look like and how to achieve the desired shift.

The FIST approach aims to establish a culture within the military technology community that rewards restrained approaches to technology and bureaucracy alike.

This paper examines both the *what* and the *how* of culture change. Specifically, it presents a roadmap to help the Pentagon establish a specific acquisition culture that values, pursues and rewards four related attributes: speed, thrift, simplicity and restraint. These attributes are collectively part of a framework known as FIST (Fast, Inexpensive, Simple, Tiny).

The FIST approach aims to establish a culture within the military technology community that rewards restrained approaches to technology and bureaucracy alike. FIST is oriented towards delivering affordable systems that are available when needed and effective when used, and away from the all-too-common delays and overruns associated with unnecessarily complex procedures and technologies. Establishing this cultural shift relies on four key influence channels: leadership, literature, education and peer networks. This paper identifies specific actions for each channel and explains how each can help foster a more productive culture.

It is important to note that FIST is not primarily about saving money. Instead, the objective is to deliver world-class capabilities on operationally relevant timelines. The fact that top-shelf gear does not require spending decades and billions is a happy side benefit in a time of austerity and rapidly changing threat environments, and launching a FIST initiative should result in substantial financial savings, but the top priority goal is to make sure our forces have the most effective gear possible.

ISSUE

The prevailing culture within the acquisition community has a longstanding tolerance for high levels of complexity, expense and delay. Despite the seemingly perpetual calls for efficiency, it is a virtual article of faith that a good acquisition program has a price tag measured in billions, a schedule measured in decades, documentation measured in metric tons and complexity measured in mega-joule-hertz-angstroms-per-attoparsec-squared.

A recent article in the Acquisition Review Journal expressed the zeitgeist this way “In general, a product delivered quickly, cheaply and simply will not perform as well as one with more time, money, and arguably more complexity...” The paper did not provide data to support this assertion, nor did it have to. Most readers simply accepted this sentiment as self-evident, because they are part of an acquisition culture that has a high regard for expensive, large, complex systems and expects a project’s performance to be directly proportional to its cost, schedule and complexity. In this culture, more always means better.

The defense technology establishment, in both government and industry, has a long-standing tendency to equate budgets with prestige, complexity with sophistication and a slow, deliberate pace with wisdom. When simpler, cheaper alternatives delivered on shorter timelines cannot be avoided, they are often viewed as regrettably necessary contingencies (which should be cancelled or complexified at the soonest possible moment), even when they deliver demonstrably superior capabilities at the speed of need.

The defense technology establishment, in both government and industry, has a long-standing tendency to equate budgets with prestige, complexity with sophistication and a slow, deliberate pace with wisdom.

This phenomenon helps explain the troubling trend depicted in Figure 1, which compares the development timelines of military aircraft with commercial aircraft and commercial automobiles. The phrase “time is money” should be kept in mind when reviewing this figure.

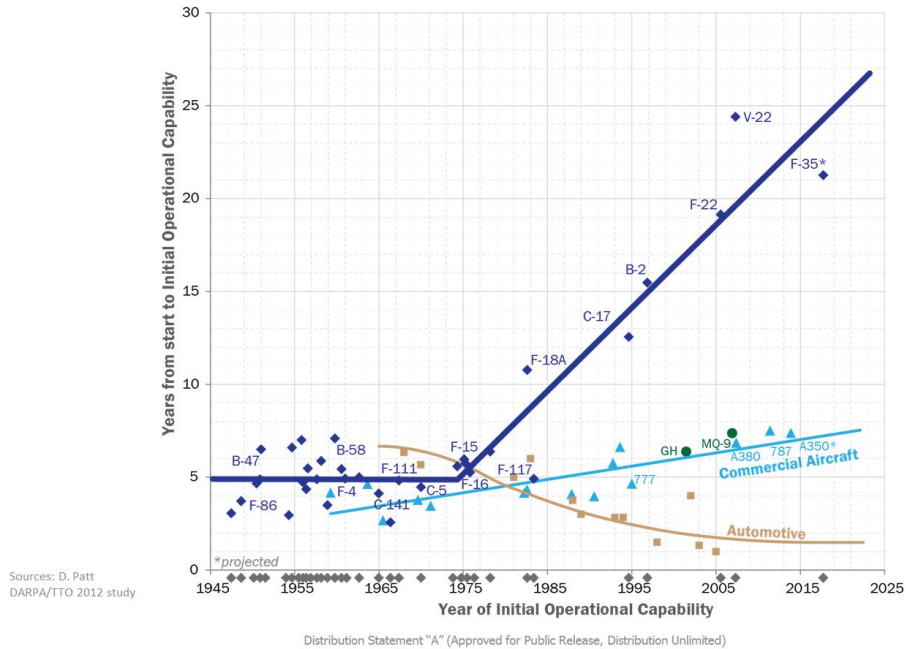


Figure 1: Development Timeline Comparison

These results suggest today’s acquisition culture does not merely tolerate expensive, slow, complex programs, it actively pursues and rewards them. As several GAO reports have shown over the past decade, increasing the schedule and budget seems to be the Pentagon’s preferred problem solving strategy, particularly for programs that were expensive to begin with. This indicates a perverse incentive structure in which skyrocketing costs and long delays are seen as not only inevitable and expected but actually desirable, rewarded by profits, promotions and follow-on contracts.

So long as the acquisition culture prefers expensive and expansive programs, no amount of process change or legislative requirements will prevent cost overruns and schedule delays. Culture always trumps policy, so even the most efficient process will be undermined by an environment where people prefer to interpret and implement the process in an expensive, slow and complex manner. Therefore, alongside whatever regulatory and procedural changes we might introduce, acquisition reform efforts must address the issue of culture and work to foster a new mindset within the workforce.

Since 2003, a small but growing cadre of defense professionals has built an acquisition counter-culture based on a preference for speed, thrift, simplicity and restraint. This framework is sometimes referred to by the acronym FIST (Fast, Inexpensive, Simple, Tiny).

Culture change is difficult, but it can be done. One key to changing the culture is to recognize that even in an organization like the Department of Defense, culture is not monolithic. Diversity exists, so the key is to identify places where the seeds of change are already cultivated and

encourage their propagation from niche to mainstream. This requires a clear vision and thoughtful, outspoken leadership as well as a willing group of working-level trend leaders to help spread the word. The following paragraphs will introduce one such group.

Since 2003, a small but growing cadre of defense professionals has built an acquisition counter-culture based on a preference for speed, thrift, simplicity and restraint. This framework is sometimes referred to by the acronym FIST (Fast, Inexpensive, Simple, Tiny). The cadre includes military personnel, government civilians, academics and industry partners. They can be found across the DoD and DHS, working on a variety of programs and at levels of responsibility ranging from junior engineers to relatively senior military officers and civilian officials.



Since the FIST culture is already present on a small scale, if a high-profile acquisition leader were to publically launch a major culture change initiative based around FIST, he or she could expect support from this responsive and enthusiastic corps of experienced professionals. Members of this informal group do not need to be convinced or educated. They simply need to be unleashed and encouraged.

Of course, this would not result in an automatic or easy victory, as there is much cultural inertia to overcome in the wider acquisition community. Countervailing forces would surely take steps to resist and undermine the change. Nevertheless, a FIST initiative can immediately tap into a strong group of practitioners, technologists, educators and leaders ready to serve as the vanguard for culture change in the direction of speed, thrift, simplicity and restraint.

The specific FIST concept is not the only possible alternative, and many of the elements of FIST are drawn from other, similar initiatives (such as Agile, Skunkworks or Faster, Better, Cheaper). While there are undoubtedly other reform frameworks that could support a similar cultural shift, this paper focuses on FIST as a particularly impactful approach for the DoD to consider.

It is worth noting that FIST is a cure-some, not a cure-all. It aims to help improve acquisition outcomes, not to perfect them.

BACKGROUND

For all the sociological talk about culture, FIST is the product of an engineering mindset and data-driven research. The analysis underlying the FIST culture shows the most innovative and impactful weapon systems, ranging from fighter jets and submarines to IT systems and spacecraft, tend to be the result of tight budgets, short schedules, narrowly focused requirement sets and a strict dedication to simplicity.

This data includes the results of the Pentagon's Air Combat Evaluation / Air Intercept Missile Evaluation (ACEVAL/AIMVAL) in the mid 1970's. According to a Chicago Tribune report from December 1981, computer simulations predicted that F-15s and F-14s would enjoy a 74-to-1 kill ratio against the simpler, cheaper F-5s, but after several hundred dogfights, the actual ratio was

2.5 to 1. While an F-15 at the time cost \$30 million, the F-5 only cost \$4 million. This means that in 1981, for \$60 million we could purchase either two F-15s or fifteen F-5s, as shown in Figure 2 below.

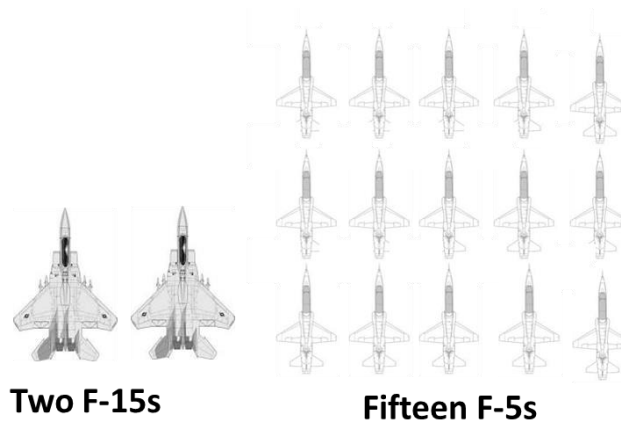


Figure 2: \$60M Worth of Jet Fighters in 1981

Pit those two fleets against each other and, at a 2.5 to 1 kill ratio, we could expect to see ten F-5s and zero F-15s survive the encounter.

Naturally, the ACEVAL / AIMVAL results were contested by F-15 advocates. They objected that the F-5s exploited weakness of the more exquisite F-15s, didn't fight by the book, confused the F-15 pilots and did things that people wouldn't do "in a real battle." Of course, that was sort of the point. The more expensive, technologically advanced F-15's did not enjoy nearly as much of an advantage as the computer models predicted when faced with surprising, unconventional tactics implemented by simpler, less-expensive fighters. In some scenarios, the kill ratio was consistently 1-to-1, which begs the question of whether the more advanced fighter was a rational option.

Several prominent analyses have suggested it is possible to reduce the cost and schedule of acquisition programs without reducing America's military strength.

This decades-old example is not an isolated or unique instance of simple/inexpensive systems outperforming complex/expensive alternatives. A 2007 analysis by Pierre Sprey indicated an identical pattern of operational outcomes across scenarios ranging from tanks to missiles to rifles. Expensive, complex weapons that looked good on paper consistently failed to outperform the simpler, less-expensive alternatives, often because the complexity and cost of their designs resulted in reduced reliability, maintainability, availability or all of the above.

Several prominent analyses have suggested it is possible to reduce the cost and schedule of acquisition programs without reducing America's military strength. For example, in 1986, the Packard Commission concluded acquisition timelines could be reduced by half (or more), and

that such reductions would not only save money but would also *improve* combat capabilities. Several subsequent blue ribbon panels, case studies and acquisition assessments echoed that analysis, such as Dr. Howard McCurdy's 2001 book *Faster, Better, Cheaper*, multiple studies by Boston-based program management research company The Standish Group, Ross McNutt's 1998 PhD thesis at MIT, and my own 2009 master's degree thesis at the Air Force Institute of Technology. Data set such as those – and the lessons, techniques and tools they convey – help to inform and define the FIST culture and are key to its propagation.

MANDATE FOR CULTURE CHANGE

The Better Buying Power 2.0 initiative aims to “achieve greater efficiency and productivity in defense spending.” Alongside a large slate of procedural changes, the seventh Focus Area (*Improve the Professionalism of the Total Acquisition Workforce*) includes a charge to “continue to increase the cost consciousness of the acquisition workforce – change the culture.” As noted in the introduction, this call for culture change was thin on specifics of *what* and *how*. Nevertheless, BBP 2.0 provides a culture change mandate that FIST can help answer.

The specific action proposed by BBP 2.0 is to “practice and reward behaviors that benefit the taxpayer and the Warfighter by obtaining the best value possible for the dollars entrusted to us.” This is a step in the right direction and provides a toehold for pursuing more specific cultural shifts. To further this effort, cost conscious might be expanded to include awareness of the cost of complexity and the cost of delay. In doing so, a culture of cost consciousness supports an appreciation for speed and simplicity. This expansion helps establish a direct link between the FIST culture shift and current acquisition improvement activities.

PROPOSED APPROACH

Culture is determined by the collective decisions and behaviors of individuals within a particular group. In the case of the acquisition community, culture is expressed through the choices and actions of acquisition practitioners – the program managers, engineers, contracting officers, etc. – as well as the warfighters who help define requirements and the contractors who propose and design solutions.

Figure 3 below identifies four channels of influence on an acquisition practitioner's decisions and activities: Leadership, Literature, Peers and Education. When these channels provide a consistent message to a significant portion of the population, they reinforce each other and help to shape the culture. The following pages explain how to use all four channels to support developing a FIST culture.

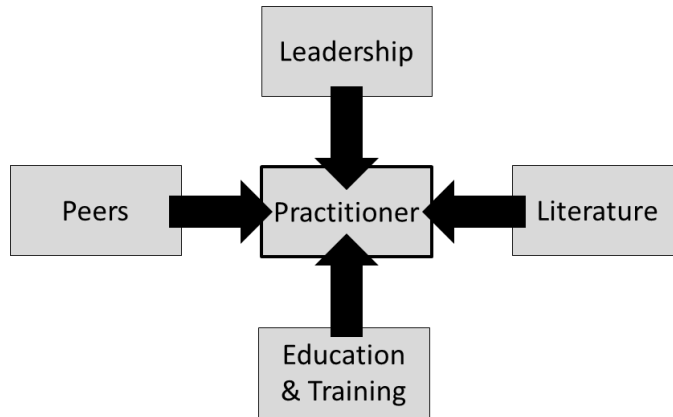


Figure 3: Influence Channels

LEADERSHIP

The Leadership channel consists of multiple sub-channels, such as policy, guidance, metrics and incentives. While the first step in changing culture might be for leaders to cast a vision and publicly launch a formal initiative, simply write a policy memo and introducing a new slogan or bumper sticker will not result in meaningful change. In order to integrate FIST into the culture, leaders will have to institute mechanisms to measure, monitor, incentivize and reward the four components of FIST: speed, thrift, simplicity and restraint.

These mechanisms should include detailed, publicly disseminated measurements across the defense acquisition enterprise. The Undersecretary of Defense for Acquisition, Technology & Logistics, Mr. Frank Kendall, recently announced a concerted effort to collect, analyze and publicize some of this data, as documented in the first Annual Report on the Performance of the Defense Acquisition System, dated 28 June 2013. Figure 4 shows cost growth data for major defense acquisition programs from the 2013 report, which also contains similar data on schedule growth.

Figure 2-8. Contract Level Total Cost Growth on MDAP Development Contracts (1992–2011).

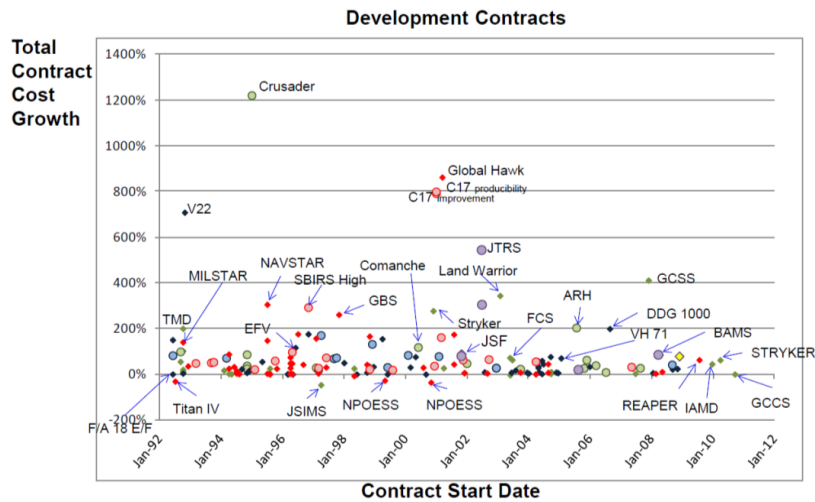


Figure 4: Contract Cost Growth (1992-2011)

This is a good start and provides insight into exactly how much time and money the Pentagon is spending on acquisition programs. Collecting, analyzing and publicizing such data can help support a culture of speed and thrift by identifying and celebrating instances where spending less time and money resulted in operational success, particularly if the data is accompanied by imitable practices and techniques.

Data on complexity and restraint are not presented in the 2013 report and should be included in the future. Measuring complexity and restraint is more challenging than simply measuring how much time and money is spent, so meaningful metrics need to be developed. DARPA's META project is currently hosting an effort to "Develop a practical, observable metric of complexity for cyber-physical systems," which might also point in the direction of complexity metrics for general use. Measuring restraint might include quantifying the number of Key Performance Parameters, requirements, documents, reviews and/or leadership oversight levels, as well as how frequently these aspects change.

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In addition to collecting this information and making it public, acquisition leaders should set specific goals for reducing the cost, time and complexity associated with acquisitions and provide incentives (and consequences) related to reducing each. On the question of timelines, several research projects documented in *It's About Time* (Defense AT&L, Jan/Feb 2006) indicate 50% reductions are feasible.

Since the cost and schedule of an acquisition program are directly proportional, this suggests 50% cost savings are not unreasonable. However, based on other research, this may actually be a conservative estimate. Under the Faster, Better, Cheaper initiative, NASA launched 16 missions for the price of one (the Cassini mission to Saturn), including the Pathfinder mission to Mars that cost almost exactly one-fifteenth of the Viking mission to Mars, or 6.7%. Both Viking and Pathfinder were successful, but Pathfinder's rover was able to explore much more of Mars than the two static Viking landers.

To be completely accurate, only ten FBC missions succeeded, which means NASA delivered ten successful missions for the price of one. This is merely a 90% cost savings instead of 93.3%. However, the ten successes included some of NASA's proudest moments in recent memory, producing world-class science and many first-ever achievements.

The data suggests the DoD could set an aggressive cost saving goal without impairing operational capability. For that matter, the data indicates an aggressive cost saving goal just might correlate with enhanced operational performance. Such goals will never be set or pursued without a change in the culture. However, one of the best ways to influence an engineering culture is with data. Demonstrating viable alternatives to the status quo removes the air of

inevitability that surrounds large budgets and long timelines. Publicizing the deep practices and techniques associated with FBC will further equip the acquisition community to make meaningful changes in behavior and decisions.

To further nudge the culture in the direction of thrift, concrete steps could be taken to divest budget size from prestige. One simple way to do this was described in a 2004 *Defense AT&L* article titled *Doing Less With More*. The article proposes replacing the term Major Defense Acquisition Programs (MDAP) with a more accurate, less appealing term. Instead of the word “Major,” which implies an admirable degree of importance, it suggests the word “Expensive” be used. Thus MDAP’s become EDAPS.

As Figure 5 (from the 2004 article) shows, the current terminology designates a notional Program A as a prestigious “Major Program,” based solely on the program’s cost, while Program B, which provides the same capability improvement for less costs, is treated as a less-prestigious minor program. This creates cultural pressure in the direction of increased costs (indicated by the arrow labeled E), which perhaps explains why the average cost growth was 18.2% in 2002 (as shown in Fig. 5) and why the GAO’s 2013 Assessment of Selected Weapon Programs report stated “When assessed against first full estimates, the total cost of the portfolio has increased by over \$400 billion...”

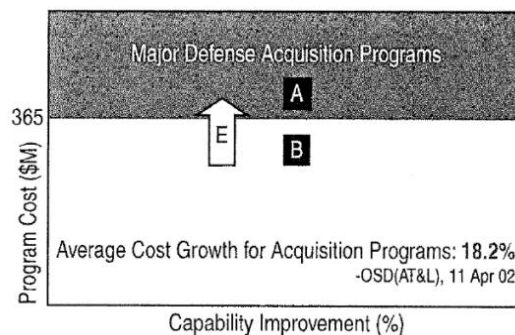


Figure 5: MDAP Definition

Figure 6, also taken from *Doing Less With More*, depicts the alternative EDAP approach. By referring to large, expensive projects as Expensive Defense Acquisition Programs, the current MDAP designation could then be reserved for programs that offer a significant increase in *capability* over legacy programs or have relatively low costs. The figure shows three notional programs: A, B, and C. All three provide the same degree of capability improvement over the legacy system, but C does so for the lowest cost and thus receives the prestigious Major designation. In contrast, program A’s cost exceeds \$365M, making it an Expensive program. This terminology creates environmental pressure in the direction of decreased costs and increased capabilities (indicated once again by the arrow labeled E), by recognizing programs in the lower right section of that graph as Major programs.

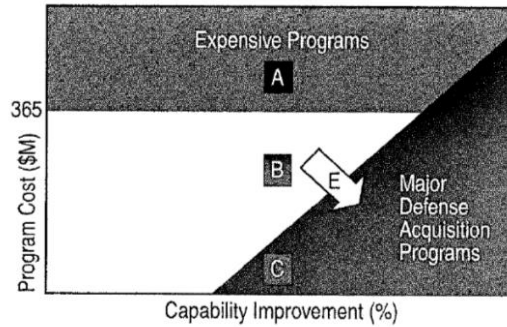


Figure 6: EDAP Definition

Culture is heavily influenced by language, and this change in terminology would not only better reflect the nature of the programs in question but would push the culture in a desirable direction. Currently, the majority of Major Defense Acquisition Programs are designated as such solely on the basis of projected cost (greater than \$365M in FY2000 dollars). Since programs with price tags above a certain threshold could accurately be described as “expensive,” it does not seem unreasonable to use that word.

This EDAP designation need not be viewed as derogatory, because an expensive item may well be worth every penny. Further, since the DoD plans to spend a lot of money on the item, describing it as expensive could be considered a simple matter of honesty. It would also help reduce some of the unwarranted prestige automatically conveyed on anything called a “Major” program.

Per 10 USC § 2430, the Undersecretary of Defense for Acquisition, Technology and Logistics already possesses the authority to designate a program an MDAP. Thus, the MDAP category as defined in the right side of Figure 4 could be applied immediately, without any need to change the law. Unfortunately, this would automatically trigger an inappropriate level of oversight for many of the smaller programs. Preventing this unintended consequence is a matter of a relatively simple policy change, explaining that the MDAP oversight requirements are now being applied to EDAP’s instead.

Officially redefining today’s MDAP’s as EDAP’s would likely require a change to legislative language, but since the change is entirely semantic and not an attempt to reduce the reporting or oversight requirements of the programs in question, it should be an easier change to make than most. From a purely cultural perspective, nothing prevents the workforce from informally adopting the EDAP term when talking about these high-cost programs. In fact, many are doing so already.

Of course, an identical approach could be applied to Major Automated Information Systems (MAIS), redesignating them as EAIS.

Another step leaders could take to help create a culture of speed, thrift, simplicity and restraint involves establishing new incentives for desirable outcomes. In the current environment, if a project delivers under budget and ahead of schedule, the saved funds are generally redirected to a less-successful program (which is overrunning its budget) and the successful team is given a pat on the back followed by more work to do. This is hardly a recipe for incentivizing speed and thrift, nor does it foster a culture where saving time and money is treated as a priority.

However, simply cutting a bonus check to the successful program team would be politically problematic and unlikely to produce the desired change. Instead, a more effective mechanism would allow the program team to retain control of a percentage of the time and money they save. For example, when a program finishes early and with money left over, the team could be allowed to invest 50% of the saved time and money on a project they select.

Like a MacArthur Foundation fellowship, this autonomy should be granted with as few strings attached as possible. Such freedom would enable the team to investigate promising topics and technologies without having to provide guaranteed outcomes or spending a lot of time and effort asking oversight review committees to grant permission. And of course this approach still returns 50% of the savings to the treasury.

Such a mechanism not only communicates to the workforce that leadership is serious enough about speed and thrift to directly reward it, it also empowers the most effective acquisition teams to do more of what they are good at. The cultural impact of this policy can scarcely be overstated.

LITERATURE & COMMUNICATION

The way we chose to communicate has as much influence on culture as the content of our communications. Dense, complex briefings and reports reinforce a cultural belief that complexity is desirable and brevity is a sign of incompleteness. In order to foster a new culture that values and rewards simplicity, we must change the style of our communication artifacts.

This approach to simplifying communication could certainly apply to official announcements and policy guidelines. For example, the 24 April 2013 Better Buying Power 2.0 implementation memo included a “Guide To Help You Think,” shown in Figure 8.

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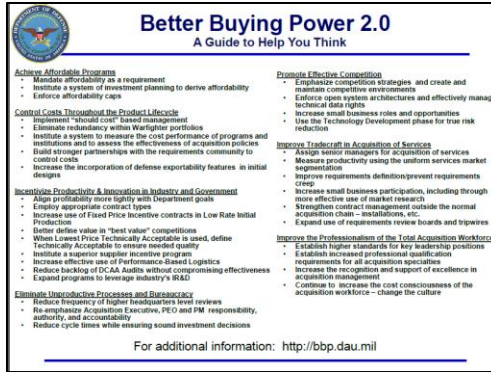


Figure 8: BBP 2.0 Guide To Help You Think

Even in a larger format than shown here, this reference document is difficult to read. With a little rearranging and trimming, the seven main focus areas can be aligned to create the image in Figure 9.

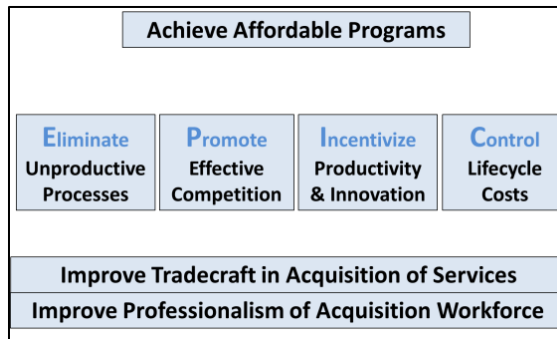


Figure 9: EPIC Acquisition Improvements

In this simplified format, the four core activities are rearranged to form the acronym EPIC (Eliminate, Promote, Incentivize, Control) and are supported by two foundational activities (Improve Tradecraft, Improve Professionalism) while the top-level objective of achieving affordable programs arches over the entire construct.

This approach communicates the BBP 2.0 approach clearly and memorably, identifying relationships between the various focus areas. This approach also provides a subtle cultural nudge in the direction of simplicity and clarity, while the original (Figure 8) reinforces a culture that overvalues complexity.

Launching an “EPIC Improvement” effort is easier to remember and understand, and thus easier to implement. Specific details about the components of each area are already captured in the original 29 page memo and need not be replicated here. The point is that the format and structure of this little guide not only affect the readability of communication products, but also reflect and influence our cultural preferences, expectations and behavior. In order to develop a culture that fosters speed, thrift, simplicity and restraint, we must demonstrate those values in our communications.

Official policy notifications are not the only way writing contributes to culture. There is also a need for journal articles, blog posts and other literary contributions. Some readers want to see statistics and data, while others prefer case studies. Still other readers need reassurances that the approach will work, while many will require how-to information and education about the tools, principles and practices involved. The current portfolio already provides many of these components, but there is plenty of room in each category (data, stories, tools) for additional contributions.

In today’s increasingly visual world, literature need not be limited to text-based documents. Indeed, *Defense AT&L* published several FIST-related comics, as did Time Magazine’s Battleland blog. Figure 7 below shows two examples of these comics. The minimalist one on the left was created using PowerPoint and a very modest degree of artistic ability, while the one on the right was produced by a professional artist. Despite the difference in artistic sophistication, both comics proved to be popular and widely read. Given their success, additional comics are called for.

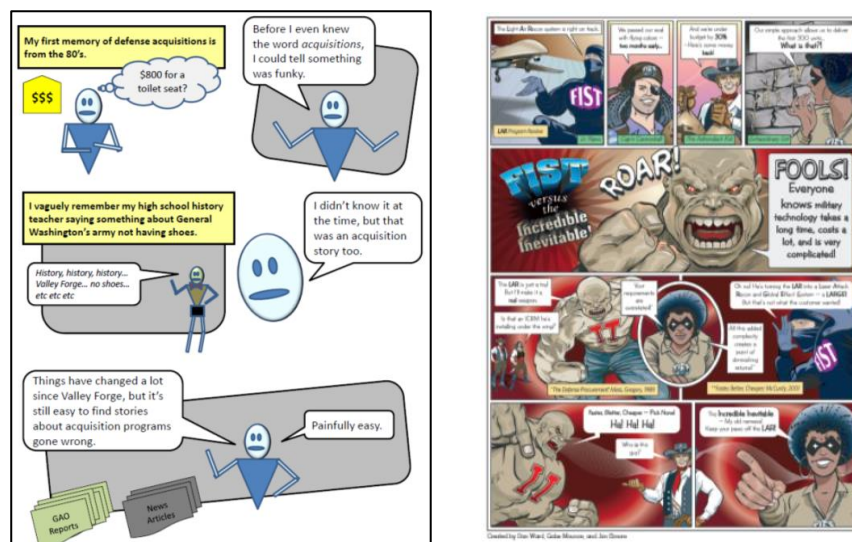


Figure 7: Samples of FIST-related comics

Scott McCloud’s 1994 magnum opus *Understanding Comics* offers a helpful primer for anyone who wants to grasp the potential of this medium, while his 2006 follow-up book *Making Comics* is an excellent guide for anyone seeking to produce material using combinations of images and text.

A series of short videos and podcasts would further expand the message’s reach. Like the comics above, as long as the content is engaging and thoughtful, effective videos need not have Hollywood-quality production values. They should, however, not be much longer than three or four minutes each.

EDUCATION & TRAINING

The various schoolhouses within the acquisition community play a significant role in defining and reinforcing culture. While courses such as Defense Acquisition University’s PMT 352B have

integrated games and simulations to great effect, much of the current curriculum supports the prevailing culture's preference for complexity, expensive approaches, and slow, deliberate pacing. To change the culture, we must shift the way acquisition professionals are trained.

The DAU wall chart (Figure 10) is a good place to start. This diagram is itself a symptom of a culture that places a premium on complexity rather than simplicity and on extravagance over affordability. As a cultural artifact, it hangs on the wall of countless cubicles across the Department of Defense, a colorful testament to the complexity inherent in this business. Its complicated presence sets a standard that all too many people try to live up to. Imagery aside, the very name of this diagram clearly expresses disdain for simplicity: The Integrated Defense Acquisition, Technology and Logistics Life Cycle Management System.

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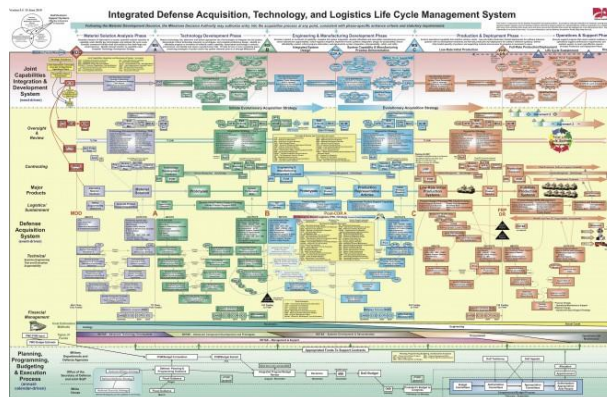


Figure 10: The Integrated Defense Acquisition, Technology and Logistics Life Cycle Management System

It should come as no surprise to discover the disclaimer in the upper right corner explains that “Defense acquisition is a complex process...” However, the disclaimer goes on to say the acquisition process involves “...with many more activities than shown here and many concurrent activities that cannot be shown on a two-dimensional chart.” In other words, this remarkably complex diagram is an incomplete, oversimplified depiction of the actual process. If this diagram is simultaneously uber-complex and entirely incomplete, perhaps it is time to try something else. The simple act of abolishing this chart would represent a huge step in the right direction, helping to shift the culture away from its current infatuation with complexity.

In terms of classroom content, the DAU curriculum should incorporate a greater emphasis on design thinking, particularly in the area of complexity and simplicity. Several academic resources are available to do precisely this, including *The Fifth Discipline* by Peter Senge, *The Design of Everyday Things* by Don Norman and *Project Management Success Stories* by Alex Laufer, to name a few.

Simplicity is a key element in this whole endeavor. In *Insanely Simple*, a book about Steve Job's obsession with simplicity, Ken Segal explained that simplicity advocates are "...not spreading some oddball theory espoused by an obscure management guru – you're talking about a powerful tool wielded by one of the most successful and important people in business history." Jobs managed to establish a deep commitment to simplicity within his company. This required constant vigilance against creeping complexity, but the resulting products and profits suggest it is an example worth following.

Lest anyone think simplicity's value is limited to commercial applications and is irrelevant to military acquisitions, the 2006 Defense Acquisition Performance Assessment report expressed a strong preference for simplicity, writing "complex acquisition processes do not promote program success..." The same could be said for complex system architectures and complex PowerPoint briefings.

Speaking of PowerPoint, DAU should resolve to set the standard for clear communication, particularly in the area of PowerPoint design. Every DAU instructor should be given a copy of Garr Reynolds' book *Presentation Zen* and challenged to apply that approach to their classroom material, then to encourage their students to do likewise. Edward Tufte's essay "The Cognitive Style of PowerPoint" provides a related counter-point and should also be required reading for all involved.

PEERS

Perhaps the most difficult, unpredictable and important contributor to culture is the peer group. No matter what is said in policy, press or classroom, culture is largely determined by the actual people we interact with on a regular basis. All the training and leadership talking points in the world will have precious little effect if the workforce decides to collectively head in a different direction. Therefore changing the culture will require not merely increasing awareness of the FIST concept via articles, memos, comics and classes, but also building community around it and integrating it into the organic structure of daily life.

Online Communities Of Practice (COP's) are one way to help interested practitioners connect with each other. A COP provides a low-threat forum for people to find like-minded partners, to post questions and to share lessons learned. Done well, a COP can be a powerful mechanism to help people shape culture. Done badly, COP's are uninhabited digital wastelands, providing neither Community nor Practice. Accordingly, they need to be established and supported by dedicated participants, not assigned as an additional duty to someone with minimal interest, skill or motivation.

Perhaps the most difficult, unpredictable and important contributor to culture is the peer group. No matter what is said in policy, press or classroom, culture is largely determined by the actual people we interact with on a regular basis.

Along with publishing blogs and magazines, professional organizations such as the Armed Forces Communications and Electronics Association (AFCEA) play a significant role in bringing

government and industry personnel together. FIST has been well received at events by organizations like AFCEA. Such forums represent an opportunity to further establish and disseminate the FIST culture. However, fiscal austerity has drastically reduced the number of conferences and symposia attended by defense acquisition personnel. In previous years presentations at conferences were an excellent way to increase awareness of the FIST concept and foster conversations that helped spread the culture. Conferences connect people to each other and expose them to new ideas. Acquisition leadership should consider creative ways to bring people together for discussions without paying for \$10 muffins at expensive hotels. The TEDx conferences offer one such model.

We also have an opportunity to collaborate with America's closest ally on an international endeavor to build a coalition culture based on delivering new military technology with speed, thrift, simplicity and restraint. The British Parliament's Defence Committee report on defense acquisition, dated 5 Feb 2013 , included the following recommendation:

7. We recommend that the Department reviews and benchmarks itself against the US "Fast, Inexpensive, Simple and Tiny" initiative.

The government's response to the report, dated 8 May 2013, stated "The MOD SOSA [System Of System Approach] team is exploring the "Fast, Inexpensive, Simple and Tiny" (FIST) initiative with the US Department of Defense. If appropriate, we will formally review and benchmark MOD acquisition against FIST during the 2013/2014 financial year." While the so-called "FIST initiative" in the US is currently informal and scattered, a little nudge from leadership could bring it together into a more cohesive and impactful entity, ready to use for benchmarking and imitation.

The British Ministry of Defense's interest in FIST suggests that a concerted DoD initiative would find willing partners not only within the American defense establishment, but also among government and military leaders across the pond.

FINAL THOUGHTS

Since 2003, the FIST approach has developed, deepened and expanded, based on experience in the field and in academia. The current collection of documented principles, practices, tools and case studies provide a foundation for a larger movement, as does the active cadre of acquisition professionals who are already using the FIST framework to guide their decision making and problem solving. The missing piece is an endorsement from a sufficiently prominent leader willing to give the FIST culture organizational support.

While FIST is fundamentally technical, it is also intended to serve as a cultural force, encouraging practitioners to adopt a mental framework that values speed, thrift, simplicity and restraint and to master a variety of related tools that express those values. A small cadre now stands ready to support a large scale implementation. The various cultural channels identified in this paper indicate the specific course of attack. All that remains is for someone to give the order.

ADDITIONAL READING

Since 2004, dozens of articles in the defense acquisition literature explained and promoted various facets of the FIST approach. The earliest papers were published in Defense Acquisition University's flagship magazine *Defense AT&L*, but since 2011 the concept has been addressed in other outlets, such as *National Defense*, *Small Wars Journal*, and *Armed Forces Journal*. Starting in 2007, the Air Force Institute of Technology launched a series of research projects on the topic, some of which were done in collaboration with Arizona State University. FIST has also been discussed and endorsed in outlets such as Time Magazine's Battleland blog, Wired's DangerRoom blog, and BreakingDefense.com.

Links to the majority of the FIST literature can be found on the AcqNotes.com website (<http://www.acqnotes.com/AcqNotes/DanWard.html>). Some of the more prominent references are briefly described below:

- [Acquisition Reform: For Real](#) (*Armed Forces Journal*, April 2012). This article provides a brief but comprehensive overview of how the DoD might launch a FIST-based reform initiative. It connects the idea to NASA's Faster, Better, Cheaper initiative from the 1990's.
- [FIST, Part 5](#) (*Defense AT&L*, May 2006). After examining different facets of FIST in a series of articles, this capstone article was the first attempt to summarize the overall approach. It still stands as a roadmap for implementing FIST.
- [FIST At Five](#) (*Defense AT&L*, May 2011). A five-year retrospective on what was attempted, achieved and learned over the first half-decade of FIST experimentation and research.
- [The FIST Manifesto](#) (*Defense AT&L*, Nov 2010). This short booklet is a quick reference guide to the main FIST principles and practices.
- [Don't Come To The Dark Side](#) (*Defense AT&L*, Sept 2011) Subtitled "Acquisition Lessons From Star Wars," this article makes the case for building simpler, less expensive systems like droids instead of enormous, complex and expensive systems like Death Stars. It considers these two approaches from technical, operational and leadership perspectives. It concludes that the interests of the warfighter, tax payer and program manager alike are all better served by using a restrained approach to build simple systems instead of taking an expansive approach and building highly complex weapons.

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