

If at First, You Don't Succeed, Train, Train Again

Improving the process

by Col Luis F. Lara & LtCol Richard J. Cushing, USMC(Ret)

Beginning with the release of *FRAGO 01/2016: Advance to Contact* by then-Commandant of the Marine Corps Gen Robert B. Neller in January 2016, the need to improve upon the Marine Corps' effectiveness at identifying and acquiring training and simulation capabilities has been clear.

In communicating his vision, Gen Neller popularized the use of the phrase "reps and sets" to describe using simulation as a primary method to achieve the future state of Marine Corps training and education. Subsequent guidance promulgated by Gen Neller confirmed that training and education, supported by modern, live, virtual, and constructive training systems, is crucial to underwriting Marine Corps' operational readiness, and fortifies the Marine Corps' ability to respond effectively as a naval expeditionary force-in-readiness.

More recently, in July 2019, the 38th Commandant, Gen David H. Berger, published his planning guidance, which reaffirms the essentiality of training and education as a means to an end—with the end, in this case, being improved operational readiness.

Taking the next logical step, Gen Berger availed himself of the opportunity to challenge the Service to abandon its use of stale, legacy models of training and education in favor of modern, adult-centered learning and competency-based education models. This paradigmatic shift in thinking is becoming evident in ongoing modernization and force design initiatives.

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Moreover, changing attitudes concerning Marine Corps training and education place new demands on the acquisition community to respond timely, with effective, cutting-edge training and education systems and services to meet the needs of the Fleet Marine Force.

In January 2020, the Under Secretary of Defense for Acquisition and Sustainment issued a significant update to the DOD's acquisition policies. The updated policy creates a more accommodating environment for program managers and acquisition professionals to develop solutions to satisfy capability needs at greater speed.

The Adaptive Acquisition Framework (AAF) will complement the Marine Corps' evolving perspective on Information Age training and education methodologies by providing an

acquisition framework that shuns the compliance-driven, risk-averse temperament of its forbearers in favor of the rapid delivery of militarily useful, difference-making capabilities.

Legacy Acquisition Frameworks

Generally, previous acquisition policies contemplated a single-acquisition pathway and, within that single pathway, a single model to guide the development of an acquisition program's strategy. In 2005, during the wars in Iraq and Afghanistan, the DOD created the Joint Urgent Operational Need process to expedite the development and delivery of capabilities to forces engaged in combat, thereby offering an alternate pathway in addition to the traditional acquisition process.

Then, in 2015, the DOD substantially modified the existing acquisition policy. The introduction of a single ap-

proach, eight-model heuristic elaborated upon the single approach, single-model heuristic that controlled acquisition policy. Though acquisition policy has long advocated for and allowed program managers to tailor their programs to balance program risk and operational necessity, a “culture of compliance” inhibits the use of tailoring to improve upon a program’s cost, schedule, and performance parameters.

However, the single pathway, eight-model approach went a long way in recognizing the dissimilar needs of hardware- and software-dominant systems as well as the requirements for incrementally developed, software-intensive systems. The advantage of the “choose your own adventure” models defined in the AAF’s immediate predecessor is that they encouraged critical thinking and innovative problem solving over compliance.

However, there remained opportunities to improve upon the rate at which the acquisition community delivered effective capabilities in response to validated needs.

Speed of Acquisition as an Advantage

Before examining the AAF, it is essential to root the discussion in a useful military antecedent. With *MCDP 1-0, Marine Corps Operations*, (Washington, DC: HQMC, 2011) serving as our guide, we know that speed and time combine to create tempo and that an advantage conveyed by tempo is gaining and maintaining the upper hand over an adversary.

Furthermore, *MCDP 1-0* provides that speed begets rapid transition, which, in turn, sustains the advantages conveyed by speed. Paradoxically, we are warned that transitions produce friction, which runs counter to the goal of creating an advantage. It is apparent then that increasing tempo leads to greater advantage, but only to the degree that the rate of increase in our operations is greater than the rate of increase in friction. Stated differently, to maximize the benefits of tempo, we also need to minimize friction.

At this point, you may be asking yourself, “What does this discussion have to do with improving the delivery of effec-

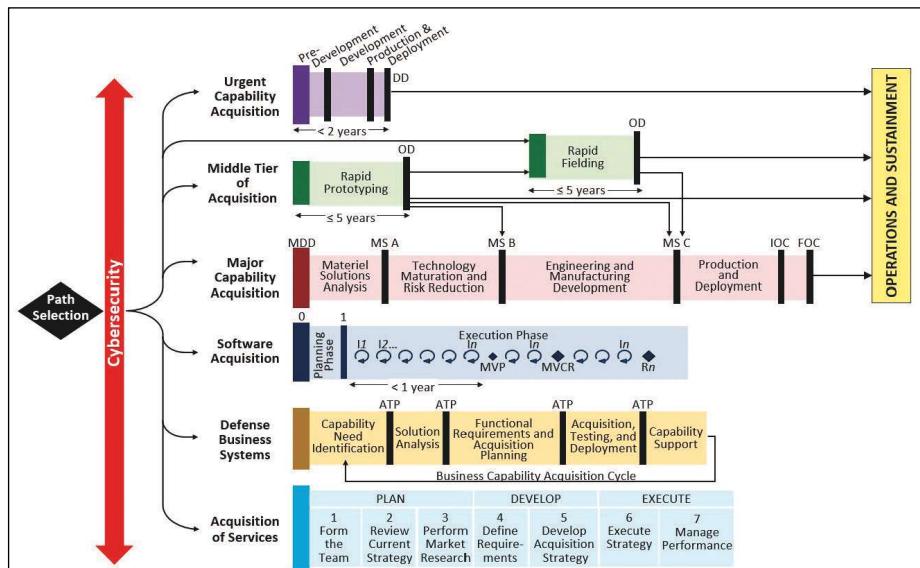


Figure 1. AAF. (Source: Defense Acquisition University.)

tive training systems and services?” With the AAF, our answer is found in the opportunity to move along the acquisition speed continuum, from moving with less speed to moving with greater speed.

To that end, adopting the AAF framework as DOD acquisition policy is an inevitable corollary of tempo. The AAF framework offers an opportunity for the acquisition community to increase the rate of acquisition activities—or acquisition tempo—to: (1) develop and place into service difference making technologies and capabilities that continuously improve upon militarily useful capabilities faster than our adversaries can respond, and (2) reduce risk, or friction, in acquisition activities, thereby sustaining acquisition tempo.

AAF

The acquisition battle rhythm for planning and execution within a program office is typical of what a Fleet Marine Force Marine is likely to experience when planning military operations and exercises. MAGTF planners recognize that achieving the Nation’s strategic military objectives is a combination of correctly identifying a strategy, developing a plan to realize strategic goals, and putting the plan in motion during execution. In the same way, acquisition professionals must identify a suitable acquisition strategy, develop an acquisition plan, and then perform the

activities needed to deliver the product or service.

Where, for example, *Joint Publication 3-02 (JP 3-02), Amphibious Operations* (Washington, DC: 2019) provides a framework for conducting amphibious operations, it also differentiates between the types of amphibious operations available. Given a need to conduct amphibious operations, military planners are free—relative to the military situation and military objectives—to select from among the five amphibious operations types, or ‘pathways,’ defined by *JP 3-02* (e.g., amphibious raid, amphibious demonstration, amphibious assault, amphibious withdrawal, and amphibious forces support to crisis response and other operations).

Analogous to the five amphibious operations “pathways” outlined in *JP 3-02*, acquisition decision makers conducting acquisition operations can select from among six pathways offered by the AAF to “develop acquisition strategies and employ acquisition processes that match the characteristics of the capability being acquired.” (Figure 1 depicts each of the six pathways.)

By introducing the AAF, major capability acquisition—synonymous with the single-pathway approach—is no longer the only pathway along which to proceed when developing acquisition strategies and plans. As such, this meaningful change is only worthwhile

if used to improve upon the delivery of capability.

Contracting Authorities

No acquisition strategy will be successful unless the appropriate contracting strategy is selected. Much like the AAF provides acquisition decision makers various authorities from which to choose, the contracting cone, shown in Figure 2, provides contracting decision makers several authorities and approaches to contracting for supplies and services.

Today, more than ever, many consider the federal contracting process to be slow, stodgy, and unresponsive to user needs. There is little disagreement that the contracting process can be lethargic; however, a closer examination shows there is a multiplicity of authorities from which contracting officers can choose.

MCDP 1, Warfighting, (Washington, DC: HQMC 1997) tells us that maneuver warfare, just like the AAF, is adaptive. Furthermore, *MCDP 1* provides that “maneuver warfare exists not so

much in the specific methods used—we do not believe in a formularistic approach to war—but in the mind of the Marine.”

To support the tenets of maneuver warfare, the Marine Corps maintains an inventory of air and ground weapons capable of delivering direct and indirect fire to generate combined arms effects. Comparable to maneuver warfare, maneuver acquisition stems from a specific mindset and a way of thinking. As depicted in Figure 2, contracting professionals have an inventory of methods to generate combined-arms contracting effects that shape the acquisition landscape purposefully and generate both the speed and tempo to support the acquisition scheme of maneuver.

However, a crucial distinction exists. Where maneuver warfare creates “winners” and “losers,” maneuver acquisition seeks to make “winners” out of all of our stakeholders because maneuver acquisition is a team sport. Broadly speaking, the members of the team comprise the warfighter, the supporting acquisition establishment, our industrial base partners,

and taxpayers. Unlike combat, which seeks to degrade or destroy an enemy’s capabilities, maneuver acquisition’s purpose is to improve or develop capability.

Describing the parallels between maneuver warfare and maneuver acquisition is not to suggest that acquisition is akin to war. The thoughtful use of the authorities included within the contracting cone helps us improve our success ratio and lead to creating and sustaining a military force with an unmatched advantage.

Case Studies

Force-on-Force Training Systems-Next (*FoFTS-Next*).

To meet expectations for unscripted, peer-to-peer, force-on-force training—particularly during the increasingly more complex and challenging Service-level training exercises conducted at the Marine Corps Air-Ground Combat Center, Twentynine Palms—the Program Manager for Training Systems PM TRASYS is under pressure to swiftly develop and field an improved force-on-force training system.

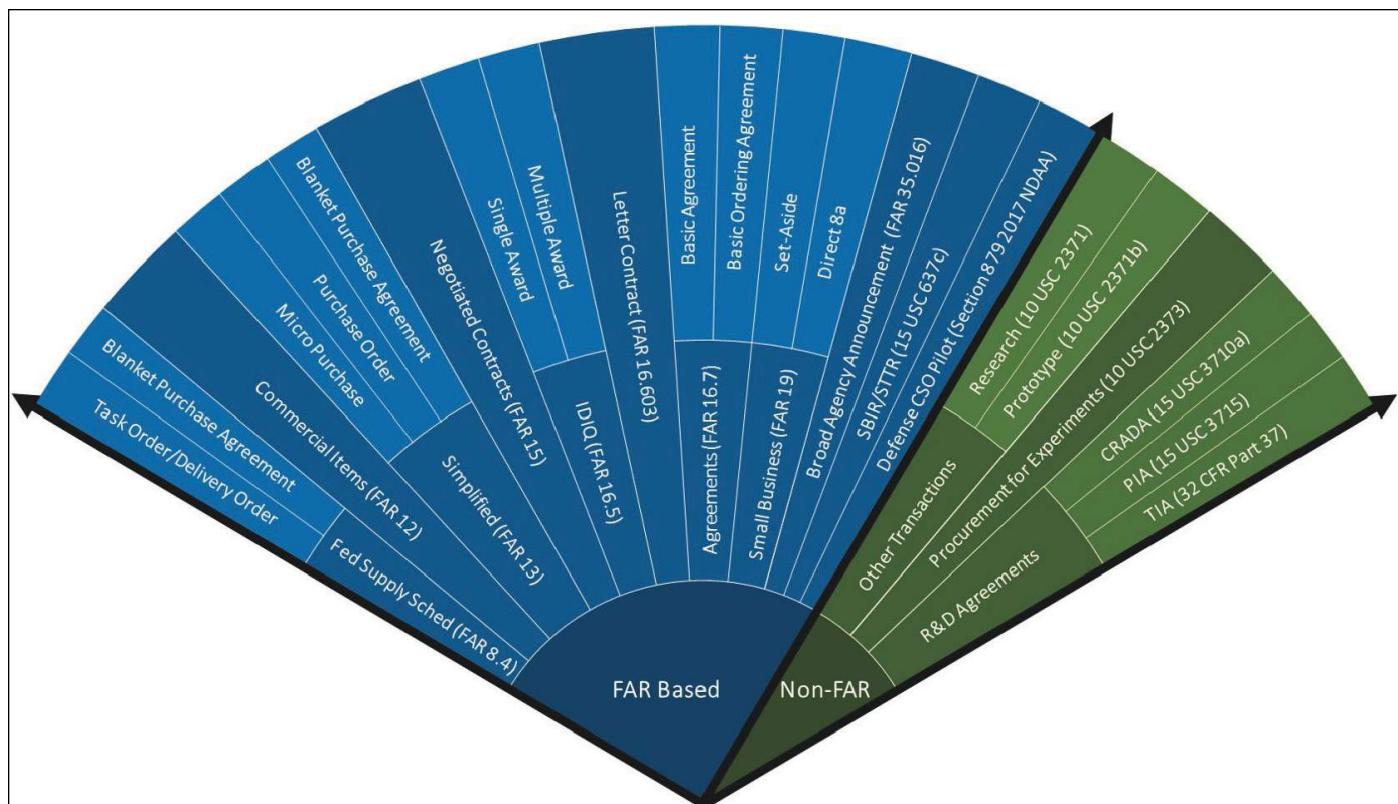


Figure 2. Contracting Cone. (Source: Defense Acquisition University.)

Tracing its roots back to the Multiple Integrated Laser Engagement System program, FoFTS-Next is the latest incarnation of an enduring capability. As such, the FoFTS-Next project team discerned that the major capability acquisition pathway would be the most appropriate acquisition strategy.

The team is implementing evolutionary acquisition tactics to deliver capabilities quickly by applying the Modular Open System Approach as the basis for their technical strategy to rapidly insert new capabilities and technologies that improve the system's performance.

The FoFTS-Next Team also decided to adopt the Simulation Interoperability Standard Organization Standard for Urban Combat Advanced Training Technology Laser Engagement Interface (SISO-STD-016-2016) as a foundational requirement. These benefits include more accurately determining distances to a target, accounting for the rise and fall of different ammunition types, and supporting the realistic engagement of moving targets by factoring into the system the need to lead a moving target.

Lastly, team embraced the U.S. Army-led Live Training Engagement Composition protocol for Live Player Area Networks to maximize the benefits of open architectures and reduce developmental costs while simplifying the process of inserting new technologies into the system.

With a carefully strategized acquisition approach, the acquisition team needed to select the most favorable contracting method to support the program's objectives. After carefully considering Federal Acquisition Regulation (FAR)-based approaches, the acquisition team ultimately decided on a non-FAR based approach to implement the authority provided at 10 USC §2371b, prototyping, to procure and field the initial increment of FoFTS-Next.

By using the DOD's authority at 10 USC §2371b to competitively enter into Other Transaction Agreements to carry out prototype projects, the FoFTS-Next team positioned itself to implement a complementary authority found at 10 USC. §2371b(f) and rapidly award a



A Navy Corpsman with Bravo Company, 1st Battalion, 1st Marine Regiment, MAGTF-8 fires his M4 carbine at a simulated enemy during a battalion urban field training exercise for Integrated Training Exercise (ITX) 5-17 at Marine Corps Air-Ground Combat Center, Twentynine Palms, CA, 1 August 2017. The purpose of ITX is to create a challenging, realistic training environment that produces combat-ready forces capable of operating as an integrated MAGTF. (Photo by Sgt Kassie L. McDole.)

follow-on production contract for the completed prototype project.

This approach represents the first use within the Marine Corps or Navy of the combined authorities described above at the contemplated magnitude, thereby requiring Assistant Secretary of the Navy (Research, Development, and Acquisition) approval.

Training as a Service

Within the training and education ecosystem, an enthusiasm exists to apply the concept of "try before you buy" when it comes to training. This is understandable and similar to test driving a car before committing to a purchase.

However, the discussion concerning the approach most advantageous to realizing this goal often involves the decision of "leasing" or "purchasing." Myopically, the "lease or purchase" discussion only considers obtaining the training capability as a supply. In contrast, the FAR bifurcates all actions into one of two categories: supplies or services.

Education and training is a portfolio within the knowledge-based services portfolio group of the DOD services

taxonomy. It is not included in any other portfolio or portfolio group within the supplies and equipment taxonomy. Provided that an acquisition objective consists of acquiring performance-based training to meet an ephemeral need, to obtain commercial or nondevelopmental items to evaluate the training capability provided, or to generate cost and performance data as a form of data enrichment to support follow-on acquisition programs, then, the concept of "Training as a Service" (TaaS) may be implemented through the acquisition of services pathway per *DOD Instruction 5000.74, Defense Acquisition of Services*, (Washington, DC: January 2020).

This approach offers Marine Corps leaders an alternative that provides the Marine Corps training enterprise with opportunities to leverage innovation and capitalize on evolving training and education concepts. In some cases, this can be done far more quickly than the Industrial Age acquisition model. Knowledge-based decision points support continuous opportunities to assess affordability, return on investment, and whether acquiring the capability continuously as a service, vice a supply, is

the best approach to deliver capability and generate “reps and sets” that sustain or improve operational readiness.

Other Uses

PM TRASYS is responsible for developing, delivering, and maintaining software-intensive training systems such as the MAGTF Tactical Warfare Simulation, Combined Arms Command and Control Trainer Upgrade Systems, the Supporting Virtual Arms Trainer among others.

Prospectively, the AAF provides a software acquisition pathway the program office will leverage to reduce software development cycles, respond more quickly to user needs, and provide cutting-edge tools that support the training of forward observers, joint terminal attack controllers, and multi-echelon battle staffs.

Additionally, in conjunction with the Range Training Program Division (RTPD) of Training and Education

Command—the Marine Corps’ capability developer for training systems—PM TRASYS will seek opportunities to leverage the middle tier of acquisition pathway to reduce the timeline for developing an actionable capability requirement and to preserve maximum flexibility for the development of prototypes as well as follow-on production.

In this manner, PM TRASYS, RTPD, and other training stakeholders are committed to an “all of the above” approach to reduce acquisition lead times and promote greater “reps and sets” with increasingly more capable solutions.

Summary

We cannot expect that a *deus ex machina* will restore the decades-long, overwhelming technological advantage we have maintained over our adversaries. We must keep in mind that the United States’ adversaries become emboldened, in part, by the theft of

our cutting-edge technology and the democratization of commercial technologies readily adaptable to be used for their military purposes. The Marine Corps must act with greater speed and initiative. By exploiting the benefits of each AAF pathway to their fullest potential, maximizing acquisition tempo and contracting agility, and working in partnership with RTPD, PM TRASYS will be able to deliver training systems more quickly to fulfill our role in improving operational readiness through training. Only then can we be satisfied that the vision of increased “reps and sets” has been achieved.



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