

Executive Summary:

- Improve the speed and timeliness of acquisition processes by increasing the use of available mechanisms for waivers and exemptions
- Educate DoD acquisition professionals on success stories of alternative mechanisms
- Accelerate deployment of capabilities to warfighters to meet urgent needs

Full Recommendation 6:

Proposal: Improve the speed and timeliness of acquisition processes by increasing the use of available mechanisms for waivers and exemptions, and by offering incentives for quick resolution of concerns. Identify and broaden the use of “best practices” by specifying aspects of acquisition approaches and techniques that are effective in the Special Operations community that could be applied more generally.

Comment: The acquisition and procurement process is too heavily bureaucratized, too slow, and too rigid to meet the needs of the Department. The Board is aware that the existing acquisition restrictions have legitimate motivations; and that many others have recommended an increase in flexibility. The Board thinks that those recommendations are correct and that it is past time to act on them. When the use of those authorities would bypass requirements that jeopardize the goals of speed and efficiency, balancing delivery to the warfighter against bureaucratic risk, officials should be encouraged to use existing exemption and waiver authorities more than they do today. In general, increasing decentralization will increase the Department’s agility.

One of the most important and recurrent themes the Board notes is the need for a multi-track acquisition system rather than a one-size-fits-all approach. Some acquisition experts respond by pointing to the existing flexibilities in the system. While those who have mastered the Federal Acquisition Regulation (FAR) and DoD 5000 may be equipped to tailor acquisition approaches, many of those who can, do not. The professional incentives to adopt standard, consistent methods and the deep cultural imperatives to reduce bureaucratic risk have created enormous pressure to conform, at the expense of programmatic or operational progress and efficiency. Unfortunately, some of the most onerous requirements for documentation and reviews may be avoided, consistent with law, and in that sense are self-imposed. Rather than continuing the common refrain of only improving acquisition education, new incentives and norms need to be established if these behaviors are to change. Consequently, further intervention to improve the acquisition system should be guided not only by emphasizing what is technically feasible under law and regulation, but also by observing which behaviors, good and bad from the standpoint of innovation, are most common, and working to align risk and incentives to increase the behaviors sought.

The Board also observed the contrast between the differences in the approach to innovation, acquisition, and fielding in the conventional forces and the Special Operations community. Special Operations Forces (SOF) have funding and authorization to conduct tactical level development, while the conventional forces do not. Consequently, the culture of SOF is different. The widely recognized agility of the SOF acquisition process is not due to US Special Operations Command (USSOCOM) being more innovative per se, but because the USSOCOM systems and culture allow and encourage SOF to innovate in ways the conventional forces do not. To correct this, the DoD should identify how a rapid development capability at

the conventional level could be established and allocate funding that can support those initiatives.

Background: Although few people have read the nearly 2,000-page FAR, those who have done so have noted that the FAR includes specific language encouraging the acquisition process to be efficient, innovative, and agile. It is an open question whether this language fits with the multiple regulatory requirements the Department has layered on top of it. The FAR should be subjected to continuing scrutiny to test whether it strikes the right balance. Regardless, the idea of the FAR as a hidebound and cumbersome barrier to innovation and reform certainly endures. Even if knowledge of the FAR's flexibilities became more widespread among those acquisition professionals viewed as most tied to the status quo, a culture that prizes large long-term, high-dollar value projects still pervades the DoD.

In our view, the current system works relatively well – despite the need for some well-articulated modifications – for large programs such as aircraft carriers, nuclear submarines, and fighter jets. But smaller programs with specific and often more immediate applications, such as counter-unmanned aerial systems (UAS), should not be subjected to the normal acquisition process. The most egregious of these mismatches is software acquisition and procurement. There should be an entirely separate process for buying software whenever it can be decoupled from a system. There are current waivers, exemptions, and alternative authorities to facilitate this, but they are not used sufficiently, and they could should be revisited and expanded. Within the existing culture, they do not attack the root of the problem.

One way to do so is to ensure that acquisition professionals better understand and use available contracting vehicles that allow for a more nimble approach. As the DoD will require emerging technology at an increasing rate to offset any adversarial advantages, Defense Acquisition Workforce Development Funds (DAWDF) should be tapped to train acquisition professionals on the benefits of alternative contracting vehicles. In addition, the DoD should modify the incentive structure that typically rewards contract managers overseeing large long-term systems, so that contract managers will also be praised and promoted for managing shorter procurement cycles for technology that is equally critical to DoD but less visible or tangible than ships or planes. Without this culture change, which includes the spreading of best practices, no amount of education and training will be sufficient.

The DoD should also expand new vehicles and programs that, while not silver bullets, can help the DoD wean itself from the bulky acquisition process and respond to warfighter needs with the speed required to outpace competitors. Here are a few examples of what the department is already doing in this area:

- The Defense Innovation Unit Experimental (DIUx) funds commercial entities, many of which are startups or other types of small companies, that would not otherwise work with the defense sector due to lack of time and resources to comply with the burdensome acquisition requirements. Through a contracting mechanism known as the Commercial Solutions Opening (CSO), DIUx can help these companies complete the procurement cycle in 60 days or less, delivering important solutions in such areas as computer vision,

high speed drones, simulations and war-gaming, indoor UAS that can operate without GPS, data analysis, and hands-free field communication systems. DIUx's use of the CSO is a model worth spreading across the DoD enterprise.

- The DoD participates in Hacking for Defense, an accredited academic course taught at a number of universities (first taught at Stanford in early 2016) that sees small teams of students solve unclassified problems that are sponsored by specific DoD commands, teams, and units, with the goal of providing sponsors with a Minimum Viable Product (MVP). Sponsors include the MD5 National Security Technology Accelerator at the National Defense University (NDU), Joint Improvised-Threat Defeat Organization (JIDO), US Army Asymmetric Warfare Group (AWG), US Special Operations Command (USSOCOM), US Navy Headquarters, 75th Ranger Regiment, the National Security Agency (NSA), US Army Communications and Electronics Research & Development Engineering Center (CERDEC), and numerous others. This approach focuses on understanding the root of the problem and using successful methods from the private sector to find the best solution. This differs from DoD's traditional model in which the military drafts the requirements for the solution it believes it needs – initiating the process that usually leads to large contractors vying to build a product that fits those requirements – even though a better solution may exist. Hacking 4 Defense helps find those better solutions the military may not be aware of, leading to some teams from the course receiving funding – either from their military sponsors or venture capital firms – after the semester ends to continue developing the product for rapid deployment. It is therefore important for additional offices and teams in DoD to submit their problem sets so university teams can help solve them and inject some outside creativity – at little cost – into the ideation and prototyping process.
- In 2016, the Army established the Rapid Capabilities Office (RCO), modeled after the Air Force RCO. The new RCO uses rapid prototyping and initial equipping, based in part on feedback from service members in the field, to deliver capabilities that will tackle high-priority threats (cyber and electronic warfare, positioning, navigation, etc.), with a delivery timetable of one to five years. The Army doesn't use the RCO to procure systems outright, but rather to close the gap between identifying the need and deploying the solution. The Navy's newly-created Maritime Accelerated Capabilities Office (MACO) is also modeled after the Air Force RCO, and should be given the resources requested in the Navy's current budget cycle.
- As a complement to MACO, the Navy's Rapid Prototyping, Experimentation and Demonstration (RPED) initiative deploys urgent capabilities to the fleet as soon as possible, quickly gauging their effectiveness to determine whether to discontinue prototyping or submit the capability to the usual procurement process to field the solution more broadly. RPED expands on the work of the Office of Naval Research's TechSolutions process, which develops and delivers technologies to warfighters within 12-18 months, based on their feedback and requests.
- The Army Rapid Equipping Force (REF) delivers technologies and capabilities to forward-deployed units requiring urgent solutions within a period of 180 days. REF focuses on the unit level, as military operations in the last decade and a half have seen the on-the-ground presence of more Army units than those of other Services, and often in remote areas. The thinking behind focusing on units rather than the full scope of the Army is the necessary approach needed to support troops on the front lines.
- The Air Force's Revolutionary Acquisition Techniques Procedures and Collaboration (RATPAC) and "Ghost" programs convene junior and mid-level military and acquisition professionals to identify ways to make the acquisition process more nimble and innovative. An exchange program between the Air Force and US Special Operations

Command (USSOCOM) empowers junior officers to implement new acquisition ideas when they are deployed to their Areas of Responsibility (AOR). This model should be expanded to the other Services as well.

- USSOCOM's SOFWERX is a collaboration lab that prototypes emerging technologies that can be quickly delivered to Special Operations Forces (SOF). While the lab is staffed by USSOCOM, anyone can come in off the street and suggest ideas. SOFWERX is working on capabilities such as thermal imagery to see behind walls, exo-skeletons as armor, vehicular modifications, more effective blood-clotting pellets, and more. While the Services have a wide network of labs, few are designed like SOFWERX. It is worth considering how they might invite outsiders to participate in the process the way SOFWERX does.