

UNCLASSIFIED

STATEMENT BY

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## **I. Introduction and Background**

Chairman Gallagher, Ranking Member Khanna, and distinguished Members of the House Armed Services Subcommittee on Cyber, Information Technologies, and Innovation, thank you for the opportunity to testify today on Department of Defense (DoD) acquisition and the transition of technology at scale.

Recognizing the People's Republic of China as the pacing challenge, the 2022 National Defense Strategy advances our security goals through three primary ways: integrated deterrence, campaigning, and building enduring advantages. For those in the defense acquisition enterprise, the National Defense Strategy is a call to action. Building enduring advantages to enable integrated deterrence requires the right mix of capabilities and technologies woven together to defend against current and future threats. To deliver that mix, our Defense Acquisition System (DAS) must be able to deliver integrated capabilities to the warfighter quickly and at scale.

Accordingly, the Department continues to evolve our policies, processes—and most importantly—our culture. In many ways, that process began with a comprehensive update of the Defense Acquisition System, creating the Adaptive Acquisition Framework (AAF) and its six tailorable pathways to give program teams more flexibility based on the capability being acquired.

Through continued partnership with Congress, several provisions in recent National Defense Authorization Acts (NDAAs) were instrumental in enabling this transformation, including:

- Section 804 of the Fiscal Year (FY) 2016 NDAA, which authorized operation of the Middle Tier of Acquisition (MTA) for programs intended to be prototyped or fielded within five years.
- Section 815 of the FY2016 NDAA, which codified DoD permanent authority to award Other Transactions for research, prototype, and production purposes.
- Section 825 of the FY2016 NDAA, which delegated milestone decision authority to the service acquisition executive (SAE) of the military department or component that is managing the program, unless another individual is specifically designated by the Secretary of Defense.

- Sections 873 and 874 of the FY2018 NDAA, which authorized pilot programs to leverage iterative software development techniques and other Agile standards and best practices.
- Section 800 of the FY2020 NDAA, which provided statutory flexibilities for the creation of the Software Acquisition Pathway.

Since the AAF's implementation, there are now more than 130 active programs following the MTA Pathway and an additional 35 programs following the Software Pathway. This includes platforms and systems directly relevant to the high-end fight against a strategic competitor. By employing an MTA rapid prototyping effort, the Air Force is building off years of collaborative research and development efforts with Australian allies to accelerate capability delivery by two-plus years. The Army's Integrated Air and Missile Defense program likewise accelerated its software delivery velocity by 500 percent by using the Software Acquisition Pathway.

## **II. Enterprise Alignment and Reform**

However, as we continue to drive the cultural shift to embrace the flexibilities afforded by the AAF, we also recognize that the framework alone is not enough. Innovation does not happen in a vacuum; it requires efforts across the Department to be in sync with one another.

As such, a holistic approach to enterprise acquisition is necessary, one that integrates policies and processes at the micro level but also aligns other key aspects of defense acquisition at the macro level. The fielding and sustainment of capabilities is intrinsically linked to requirements generated through the Joint Capabilities Integration and Development System (JCIDS) process, and resourcing through the Planning, Programming, Budgeting, and Execution (PPBE) process. By better integrating these three distinct yet interdependent processes—requirements, resourcing, and program management—we can more effectively transition emerging technology across the proverbial “valley of death.”

Historically, the Department has often failed to get out of its own way when it comes to going fast. Requirements often focus on systems rather than capability, inhibiting innovation and incentivizing predictability over creativity. Budget processes similarly have a bottom-up nature, which can overemphasize low-impact options at the expense of strategic issues, and

inflexibility over the two-year budget build can drive delays.

To better align the “three legs” of enterprise acquisition—JCIDS, PPBE, DAS—at the macro level, we are executing Competitive Advantage Pathfinders (CAPs) to identify challenges and solutions to barriers in capability fielding. Six pathfinders are currently underway across the Military Services in priority mission areas: long-range fires; counter-command, control, communications, computers, cyber, intelligence, surveillance, reconnaissance, and targeting (Counter-C5ISRT); and Joint All-Domain Command and Control (JADC2).

All six pathfinders are delivering capability within two years and accelerating those deliveries by an average of two to four years. In many cases, these programs are often executing without any additional funding, instead focusing on open systems approaches to enable acceleration and rapid reprogramming to support prioritized acquisition strategies that meet evolving warfighter needs.

One pathfinder that has proven successful is in the Navy’s Long-Range Anti-Ship Missile (LRASM) program office. This effort was facing funding constraints and an inability to reprioritize acquisition strategies that prevented the Navy from taking advantage of new technology. Through a CAP, the Navy is leveraging agile acquisition to accelerate technology development and performance of the LRASM by two years.

Ultimately, CAPs are aiming to increase transparency within, and alignment of, decision support systems, and identify scalable reforms for broad implementation. In FY2023, we are executing a second sprint of as many as seven additional pathfinders focused on systemic challenges in the “three-legged stool”: transition, cyber survivability, and capability as a service.

To truly identify and address interdependencies and critical risks, we are also broadening our assessments to include not just systems, but portfolios of systems. The Department created Integrated Acquisition Portfolio Reviews (IAPRs) to strengthen the synchronization of warfighting concepts, requirements, technologies, and program execution. Each month, stakeholders across the Office of the Secretary of Defense sit down with the Service Acquisition Executives to look at a specific mission thread—such as nuclear command, control, and communications; cyberspace operations; or integrated air and missile defense, for example—and directly align decision-making with operational needs.

At their core, IAPRs and the mission engineering mindset they are built upon foster collaboration across DoD to deliver integrated suites of capabilities that are collectively stronger together than the sum of their parts. For example, if the development and delivery of a piece of software is behind schedule, IAPRs and mission engineering analysis help us determine the impact that simple delay has on a range of systems involved in the mission thread. This better informs decision-making and allows the Department to effectively prioritize and mitigate critical risks. Further, by mapping acquisition portfolio domains to the Joint Staff's Joint Capability Areas, IAPRs help ensure that all battlefield domains and warfighting concepts are aligned at the portfolio level.

Executing IAPRs has also illuminated the need for greater integration and interoperability across systems and portfolios. The United States is confronting evolving threats which are forcing the Department to develop more complex warfighting capabilities spanning multiple Services, systems, and operating domains. Adversaries pose creative and resourceful challenges in this threat landscape, unbounded by specific missions or Service structures. Consequently, trading additive and closed capabilities for a new joint force of integrated system-of-system capabilities has become one of our highest priorities.

As a result, we recently stood up an organization focused on aligning disconnected, Service-specific system acquisitions to better inform requirements and resourcing needs. This Acquisition Integration and Interoperability, or AI2, team will translate portfolio management gaps into joint system-of-systems technical solutions and acquisition strategies. Driven by the new era of strategic competition, AI2's efforts will build upon the AAF's reforms, IAPRs, and CAPs to deliver key capabilities for the Indo-Pacific mission set.

### **III. Transitioning Technology to Production**

Ultimately, pacing the challenge necessitates becoming even better at reducing technology development and fielding cycles. A paradigm shift is required: we have traditionally thought about "innovation in technology" whereas now we must think about innovation not only in prototyping but also in development and production as well. This means rethinking the intersection of traditional design and manufacturing phases; the more we can collapse the two together, the more successful we'll be in accelerating capability delivery at scale.

Historically, we have segmented the acquisition process into the design, production, and sustainment phases. Each has a different “color of money” and different performers within the Department, and the majority of our “innovation” has focused primarily on the design phase. Instead, we need to be leveraging high-powered computing and advanced manufacturing processes to break down the divides between phases, and “innovating” in production too. That means iterating in agile sprint cycles during production, and simultaneously to design processes.

There are multiple ways to transition technology across the valley of death. This includes transitioning to a traditional program of record; delivering software to an existing system; transitioning to commercial use or vice versa; transitioning to another agency, ally, or partner; or delivering capability as a service. However, a clear pathway to production at scale within a respective acquisition strategy underpins them all. Simply stated, if a technology is not getting into production in some form, we are not actually transitioning anything. True innovation must be defined by getting capability into the hands of the warfighter—and that fundamentally depends on production.

The current conflict in Ukraine has been a wake-up call. We are seeing true innovation on the battlefield: new combinations of technologies and concepts being developed and implemented, and the cycle from idea to prototype to a warfighter’s hands collapsed to months, if not weeks. But for the first time in decades, we are also seeing the importance of production to enable that innovation.

A strong, secure, and resilient industrial base is foundational for building the enduring advantages identified in the National Defense Strategy. Hot production lines allow us to deliver modernized capabilities to the warfighter at speed and scale, and provide a deterrent value all their own.

Over time, the industrial base has prioritized efficiency over resiliency. We’ve allowed production lines to go cold, watched as parts became obsolete, and seen sub-tier suppliers consolidate or go out of business entirely. While these were conscious decisions jointly made by the Department and Congress in the face of competing priorities, no one anticipated the prolonged, high-volume conflict we are seeing in Ukraine—or that we might see against a strategic competitor in the future.

We remain challenged by the tyranny of lead time. Producing nearly any modern

capability—such as a Javelin, Stinger missile, or Guided Multiple Launch Rocket System (GMLRS)—still takes two to three years, and their complex production lines cannot simply be turned on or off based on the requirements of the day. Industry also rightfully remains reluctant to build additional capacity “at risk” until they have a clear, consistent demand signal from DoD, often with specific procurement quantities for multiple years. To be blunt, adaptability and agility have not historically been enduring features of the industrial base.

While I am confident we will manage our way out of this current crisis, we cannot stop once the fighting in Ukraine ends. To ensure we pace the threat posed by China throughout the Indo-Pacific, we cannot return to the “feast or famine” behavior we’ve typically employed as each crisis comes and goes. We must better incentivize the private sector to be more prepared to scale production and meet emergent national security needs.

At the start of the conflict in Ukraine, my office stood up a team of specialized munitions experts called the Munitions Industrial Base Deep Dive, or MIDD. They analyzed production status and capacity for key weapons systems; identified workforce, parts obsolescence, supply chain, and other constraints; and recommended paths forward to mitigate them. Working with the Military Services, the MIDD team channeled more than \$2 billion of Ukraine Supplemental and replenishment funding toward industrial base investments. In conjunction with other tools like DPA priority ratings, these efforts have expanded and accelerated production of key systems and munitions such as Javelin, Stinger, and 155mm artillery shells.

The team’s efforts have been so impactful that we institutionalized that effort in a permanent organization known as the Joint Production Accelerator Cell, or JPAC. By continuing to leverage the MIDD’s expertise, analytical processes, and current authorities, our aim is to be less crisis-driven and empower more proactive, forward-looking decision-making. The question we are now posing—which the JPAC is focused on—is how do we ramp production up and down, more flexibly and cheaply, in the future?

For example, can we use advanced manufacturing techniques to produce metal casings in smaller batches quickly when we need them? Can we find a way to cheaply print ball bearings, which are a critical limiting factor for many munitions today? In other words, can we make the industrial base more flexible and agile while bringing down fixed costs?

The JPAC will also begin exploring new, innovative approaches to production as well

as bring new, innovative suppliers into the defense industrial base. By leveraging that innovation to enable flexibility and responsiveness, we can stabilize the industrial base and ensure we are delivering the capabilities needed by the warfighter and our allies and partners.

#### **IV. Bolstering Resilience for the Future**

In the Department's FY2024 budget request, we are continuing widespread investment to strengthen the industrial base. This includes roughly \$6 billion into foundational sectors such as microelectronics and castings and forgings to facilitate overall industrial base resilience.

Congress has been extremely helpful in granting us the authority to execute multiyear procurements for our most critical munitions. Putting this new flexibility into action will not only lock in critical investments long-term and help us become even better prepared to respond quickly to future contingencies, but it will ultimately send industry a clear, stable demand signal to plan production against. We look forward to continuing to work with Congress to secure associated appropriations for execution.

Greater authority for advanced procurement of long lead time parts and subcomponents would also be beneficial. While the incompressible timelines to physically assemble many of these critical systems and munitions may only be a matter of weeks, those timelines can increase significantly by the availability of subcomponents and associated transportation requirements. Procuring items in advance that are commonly the limiting factor for overall timeline compression would provide greater agility for rapidly scaling production in the event of a crisis.

At the broader level, we must also account for increasing requests from allies and partners while limiting impacts to our own readiness. Without exportable inventory laid in, equipment will continue to be drawn down from U.S. Service stocks during future conflicts. Given that munitions are often among the first bill-payers each budget cycle, we must find a solution to augment Service procurements—something that would only further stabilize the demand signal to industry.

The most important action that can be taken to expand defense production and support the industrial base is to pass the NDAA and FY24 budget on time. Ongoing continuing resolutions are debilitating up and down our supply chains. Since 2011, the Department has



been under a Continuing Resolution for a total of four years' time. That equates to four years of delayed starts for new programs, and four years of delayed production ramps. Timely enactment of appropriations allows the Department to spend taxpayers' money in the most deliberate and efficient manner to implement the National Defense Strategy. To out-compete our strategic competitors, we cannot have one hand tied behind our back for months each year—and additional funding simply does not translate to buying back lost time.

## **V. Conclusion**

As President Biden and Secretary Austin have both stated, we are in the middle of a “decisive decade” that will set the terms of global strategic competition. The Department's ability to gain and sustain warfighting advantage will depend upon a flexible, responsive, and innovative acquisition system that delivers capability at speed and scale. The breadth and depth of actions the Department has taken in recent years to transform the Defense Acquisition System have enabled greater flexibility in the way we do business, and the partnership of Congress and committee staffs enabled these efforts.

While not all emerging technologies should be transitioned across the valley of death, we also recognize that more capabilities deserve to be getting to the warfighter than are currently doing so. Conscious decisions based on the security environment in recent decades led to a general underemphasis on production—but we are equally capable of making clear-eyed, conscious decisions now to reverse the trend. That means ensuring acquisition strategies and prototyping efforts have clear paths to production from the beginning, aligning sustained funding against that production, and leveraging advancements in production and manufacturing technologies to collapse the overall acquisition cycle.

Ultimately, delivering the National Defense Strategy's innovative technologies at scale cannot be an either-or dynamic between science and technology and production. In close partnership with the Office of the Under Secretary of Defense for Research and Engineering, we remain focused on ensuring sufficient, balanced investment and effort into both. American industry has repeatedly proven its ability to respond in the face of any crisis, but we must provide them the tools and incentives to drive this paradigm shift for the future.

The Department is mobilizing the defense industrial base in a way that we haven't seen in decades, and it is critical that we maintain our sense of urgency. We look forward to

building upon the momentum Congress has enabled to continue delivering integrated capabilities for the high-end fight at speed and scale.