

RECORD VERSION

STATEMENT BY

**THE HONORABLE BRUCE D. JETTE, PhD
ASSISTANT SECRETARY OF THE ARMY
FOR ACQUISITION, LOGISTICS AND TECHNOLOGY
AND ARMY ACQUISITION EXECUTIVE**

AND

**GENERAL JOHN M. MURRAY
COMMANDING GENERAL, ARMY FUTURES COMMAND**

AND

**LIEUTENANT GENERAL JAMES F. PASQUARETTE
DEPUTY CHIEF OF STAFF OF THE ARMY, G-8**

BEFORE THE

**SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES
COMMITTEE ON ARMED SERVICES
UNITED STATES HOUSE OF REPRESENTATIVES**

ON FISCAL YEAR 2021 ARMY GROUND MODERNIZATION PROGRAM

SECOND SESSION, 116TH CONGRESS

MARCH 5, 2020

**NOT FOR PUBLICATION UNTIL RELEASED BY THE
COMMITTEE ON ARMED SERVICES**

INTRODUCTION

Chairman Norcross, Ranking Member Hartzler, distinguished Members of the House Armed Services Subcommittee on Tactical Air and Land Forces, thank you for your continued support and enduring commitment to our Soldiers, our Civilians, and their Families. On behalf of the Secretary of the Army, the Honorable Ryan McCarthy, and the Army Chief of Staff, General James McConville, we thank you for the invitation to appear before you today, and we look forward to a productive discussion.

Our shared mission is to make sure that our Army continues to enjoy overmatch against all potential adversaries, ensuring that we can fulfill our mandate to deter and, if necessary, to fight and win as part of the Joint Force.

This past year has been one of rapid innovation, shared challenges, and incredible progress with an unprecedented unity of effort across the Army modernization enterprise. The Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)) and Army Futures Command (AFC) share the same objectives, and play distinct, but complementary roles throughout the process. Our focus is on delivering critical capabilities to our Soldiers at the speed of relevance. There will always be challenges, but we confront them as one team – together with unmatched collective experience, close collaboration, and synchronized unity of effort.

One major achievement over the past year is our growing emphasis to ‘learn early’ and applying that learning. We are learning through frequent engagements with industry, design competitions with traditional and non-traditional partners, and most importantly, from frequent touch points with our Soldiers. In turn, the close collaboration between ASA(ALT) and AFC – supporting and supported relationships all the way through the process – are easing the transition through the proverbial “valley of death” into the traditional acquisition cycle.

The Cross Functional Teams (CFTs) established under AFC have created a dynamic within the Army that allows for true iterative design and development that emphasizes learning as a critical component to refining and improving requirements. This concept is commonplace among civilian developers and innovators across both traditional and non-traditional industry. This approach has enabled our teams to work together to exploit emerging technology, develop new concepts, and refine these ideas before investing heavily. This process results in better defined and understood requirements before the Army commits to a costly Program of Record (PoR). Ultimately, our partnership enables capabilities that will achieve decisive advantage on any battlefield.

The Army modernization enterprise is gaining momentum; greater speed, efficiency, and effectiveness throughout the Army's six modernization priorities. This includes improving the way we do business across our organizations. We are seeing the benefits of our efforts – enduring priorities; decreased bureaucracy; sufficient investments; and greater access to innovation – to make us better stewards for the warfighter and the taxpayer.

THE STRATEGIC ENVIRONMENT

Geostrategic competition with our near-peer competitors, China and Russia, is only deepening. We fully expect both states to leverage every opportunity to challenge our role on the world stage, and the international norms that we and our Allies and partners have carefully built over many decades. Military modernization is one of the many forms that competition takes. As we prioritized rapid modernization our competitors – Russia and China – have not slowed down.

Both China and Russia are committed to developing hypersonic capability and advanced cruise missiles. While the United States has been the world leader in hypersonic system research for many decades, we did not choose to weaponize this capability. Our adversaries have chosen differently. Their decision to weaponize

hypersonics created a warfighting asymmetry that we must address. Additionally, China continues to grow its inventory of intermediate range ballistic missiles – capable of conducting both conventional and nuclear precision strike.

Both Russia and China have also committed to an increased pace and scope of military exercises, honing their joint warfighting capability, while China went through a large scale restructure and change of leadership to reinforce and enhance their modernization goals.

HOW WE WILL FIGHT

In October, the Army published the 2019 Army Modernization Strategy. It describes three core components of our modernization effort: how we will fight, what we will fight with, and who we are.

Our Multi Domain Operations (MDO) concept describes how we fight – by continuously converging effects across all domains, at the speed of relevance. Military strategist John Boyd had it right with his concept of the observe, orient, decide, act (OODA) decision making loop – whoever has the faster and more accurate decision cycles wins. Getting the MDO fight right depends on getting the right secure data to the right users at the right time, at scale.

Convergence is the integration of effects across the five warfighting domains, in near real time. In partnership with our sister Services, we will ensure we can maximize the use of all our capabilities more rapidly than our adversaries. This requires Joint, cloud-based, interoperable architectures that are tailorable to each Service's unique requirements and capabilities. The ability to leverage all sensors, to direct the most effective asset, and communicate that demand to the right command – in near real time – will create multiple dilemmas for our adversaries. While we continue to deliver capability to the force, convergence is key and it is a top priority for the Army.

MODERNIZING THE FORCE – WHAT WE WILL FIGHT WITH

We continue to focus on the Army's modernization priorities: delivering capability to Soldiers faster and more effectively. We are grateful to Congress for the consistent funding that has supported our modernization efforts to date. The Fiscal Year 2021 (FY21) President's Budget Request continues to fund these priorities. The FY21 budget requests \$10.7 billion to support the Army's modernization priorities, a \$2.2 billion increase over the FY20 enacted level. We continue to prioritize deliberate investments in modernization that will transform our Army and put the best equipment in the world in the hands of our Soldiers. We must aggressively pursue these priorities and associated timelines to maintain our competitive advantage.

The FY21 budget builds on the progress we have made across all priorities. Within each priority we have highlighted recent progress and outlined our way forward with continued stable funding.

- Long Range Precision Fires (LRPF) – approximately \$1.7 billion:
 - Our Extended Range Cannon Artillery (ERCA) can now shoot in the 70 kilometer range with accuracy. We are on track to field the first ERCA battalion in FY23.
 - We had a successful and accurate flight test of our Precision Strike Missile (PrSM) in 1QFY20. We will begin fielding PrSM in FY23.
 - The Army's hypersonics program is managed by the Rapid Capabilities and Critical Technologies Office (RCCTO), which works closely with the LRPF CFT. As the Army component of the Joint Service Conventional Prompt Strike program, RCCTO is on track to deliver a road mobile hypersonic prototype battery by FY23.

- Next Generation Combat Vehicle (NGCV) – approximately \$1.5 billion:
 - The decision to revisit the characteristics, acquisition strategy, and schedule of the Optionally Maned Fighting Vehicle (OMFV) – very

early in its cycle – is the type of decisive action that working as an integrated team can enable. We remain committed to the OMFV program as it is our second-highest modernization priority, and the need for this ground combat vehicle capability is real. It is imperative we get it right for our Soldiers.

- We demonstrated the first robotic breach of a complex obstacle last year. Although still in its very early stages, this work will reduce the number of Soldiers we place at risk in some of the most dangerous positions on the battlefield. Next month, at Fort Carson, we will have another Soldier touch point demonstrating the incorporation of unmanned vehicles into ground combat operations.
 - In 4QFY25, we will see the first fielding of Mobile Protected Firepower (MPF) to give our light infantry much needed firepower.
- Future Vertical Lift (FVL) – approximately \$1.1 billion:
 - Following the successful firing of a Spike – Non Line of Sight (NLOS) missile from an AH-64E Apache in 4QFY19, we will achieve initial operating capability in FY23 with three Combat Aviation Brigades. This capability extends range by four times over our current Hellfire missiles.
 - We had successful demonstrations from industry for our Future Long Range Assault Aircraft, and will down-select to two vendors this month.
 - We’ve also successfully demonstrated a Modular Open System Architecture that allows for the insertion of upgraded or new capabilities within the aircraft as they become available, instead of being limited to major overhaul upgrades.
 - Army Network – approximately \$2.2 billion:
 - This past year we began fielding the Command Post Computing Environment that incorporates continuous developmental operations through Soldier feedback. We’ve also started incorporating tools that

aid our Soldiers in detecting cyber intrusions into the tactical network. This will also be incorporated by USAEUR in Defender Europe 20.

- We fielded – and sent forward – components of our Integrated Tactical Network that allow our commanders greater connectivity options and increases interoperability with allies and partners. Feedback will inform capability set 21 – which we will field to four Infantry Brigade Combat Teams in FY21.
 - We also fielded the first generation of Mounted Assured Positioning System to units in Europe.
- Air and Missile Defense (AMD) – approximately \$2.0 billion:
 - We went from a directed requirement for Maneuver Short Range Air Defense (M-SHORAD) in February of 2018 to prototype delivery last December – shortening the projected timeline by almost four years. We’ll be going through testing this year with initial fielding in FY21 and four battalions equipped by FY23.
 - We took directed energy (DE) out of the realm of research and demonstration and into delivering capability to Soldiers. We accelerated the competitive prototyping of the Army’s first combat-capable high energy laser weapon system, which will provide a 50 kilowatt-class laser on a Stryker platform supporting the M-SHORAD mission. This effort will lead to the fielding of four DE-M-SHORAD prototype combat vehicles in FY22.
 - Soldier Lethality – approximately \$1.4 billion:
 - The Integrated Visual Augmentation System (IVAS) is – for now – our best example of a departure from the traditional requirements process. We’re working with Microsoft Corporation in three week sprints – and we’re going directly to Soldiers in each one of the sprints to refine the product to make sure we get it right. This approach led to a significant

reduction in estimated delivery to our Soldiers – on track for delivery in 4QFY21.

- We're also well into developing a new rifle, round, and sight, the Next Gen Squad Weapon (NGSW). The sight already integrates into the recently fielded Enhanced Night Vision Goggle – binoculars – where Soldiers don't actually have to look down their sights to aim. It's projected right into the goggles. The sight will be fielded in FY22 and integrated into IVAS as well.
- Additionally, our Synthetic Training Environment CFT has already put prototypes of One World Terrain (OWT) in the hands of units. More than just imagery, it provides a 3D representation of the entire earth that we can integrate into simulation. When paired with IVAS, it will allow our Soldiers to simulate any location on the planet right from their combat goggles. OWT has also shown how it can be used operationally to help forward deployed units identify locations to harden their security posture and improve the protection of their Soldiers.

Our funding requests also includes support for research in the nine priority areas of science and technology highlighted in the Army Modernization Strategy: Our investments in S&T helped solve problems in each of the CFT's areas of interest, and identify future opportunities.

Under AFC, there are eight CFTs aligned to the Army's six modernization priorities, focused on 31 signature systems. The CFTs and their partnered PEOs are resourced and empowered to rapidly generate cost-efficient capabilities that ensure overmatch against near-peer adversaries, and can be rapidly fielded to warfighters.

In addition to the 31 CFT-led priorities, Hypersonics, DE, and Space are also high-priority efforts for the Army. Collectively, these three are referred to as the "plus 3" to our 31 signature efforts. These efforts form the nucleus of the Army's Modernization Strategy. Hypersonics and DE are managed by the Army Rapid Capabilities and

Critical Technologies Office (RCCTO), which is a uniquely chartered organization that develops rapid prototypes, delivers residual combat capability to Soldiers, and provides a foundation for key new programs of record.

Looking ahead, the Army is increasingly focused on integrating efforts across our CFTs. Integrating these systems and programs across the Army and other Services ensures the Joint Force can fight and win. To support this effort, we established Project Convergence. Currently in the planning phase, it will leverage existing experimentation to integrate capabilities, identify data gaps, and allow us to develop data standards that enable the full realization of MDO. Project Convergence is the Army's overarching contribution to Joint All-Domain Command and Control.

THE ENTERPRISE – WHO WE ARE

The Army modernization is based on strong unity of effort – multiple organizations working in distinct but complementary ways toward the same objective, the multi-domain force of the future. As the 2019 Army Modernization Strategy describes, we are transforming the Army into a multi-domain force, not just incrementally improving it.

AFC and ASA(ALT) are key stakeholders in the Army modernization enterprise, along with other organizations across the entire Army, including HQDA staff and other Army commands. AFC, under the strategic direction of HQDA, develops and delivers future concepts, requirements, and organizational designs based on its assessment of the future operating environment. AFC plays an essential role in developing system characteristics, informed by experimentation and technical demonstrations, and refining these characteristics into requirements. ASA(ALT) develops, acquires and fields materiel solutions that meet the operational requirements defined by AFC and others, and acts as the acquisition decision authority throughout the acquisition lifecycle.

Information transparency forges data-driven decisions between our organizations and reinforces the unity of effort across the Army modernization enterprise at the speed of relevance. AFC and ASA(ALT) work together to develop the most lethal, technologically advanced fighting force the world has ever known. This kind of collaboration is at the heart of the enterprise and is critical to our success.

The partnership between AFC and ASA(ALT) also provides a unique opportunity for collaboration between the CFTs and ASA(ALT)'s Program Executive Offices (PEOs) to bring system concepts and designs to life. The CFTs and PEOs work together to align requirements developers and acquisition experts with representatives from the testing, logistics, science and technology, and other functional communities. Each CFT has an associated primary PEO who is responsible for the CFT portfolio area. The responsible PEOs assign and oversee the program managers for all "31 +3" signature systems. This close working relationship between the CFTs and the PEOs is extremely valuable: the acquisition community contributes to AFC's operational requirements development process and the CFTs participate in deliberation over acquisition strategies, while each organization retains its own responsibilities.

The foundation of the Army modernization enterprise is the tremendous Soldiers and civilians who work hard, each and every day to make sure we deliver capability that provides the Army with a warfighting advantage at an accelerated pace.

REFORM

The Army continues to implement the reform initiatives granted by Congress designed to streamline and gain efficiencies in the acquisition process. These initiatives, which have reduced bureaucracy and helped the Army accelerate the delivery of capability to the field, include the granting of Middle Tier Acquisition Authority (MTA) which allows for both rapid prototyping and rapid fielding efforts, and the expanded use of Other Transactional Authority (OTA), which now can be extended to include production. The Army is using MTA for rapid prototyping to accelerate select

efforts linked to the Army's modernization priorities, including ERCA, IVAS, Lower Tier Air and Missile Defense Sensor, PrSM, NGSW, and MPF, each of which is designed to leave a residual capability with the warfighter that can enable constructive feedback and refinement of requirements. The Army effectively utilizes OTA to streamline the acquisition of basic through advanced research activities, prototype projects, and follow-on production efforts. OTAs are simplified contract mechanisms that lend themselves to working with small companies and non-traditional contractors, a known source of technological innovation. In FY19, the Army awarded more than 830 agreements valued at \$4.9 billion.

In addition, the Army has issued two new policies – one on Intellectual Property (IP) and the other on Advanced Manufacturing (AM) – to further enable modernization and readiness objectives. The first stresses identifying and planning for IP needs early in the lifecycle of any system. It includes IP requirements, strategy, licensing considerations and open communication with industry. The second establishes a unified Army strategy that aims to achieve a strategic investment in AM by both the Army and industry and the systemic adoption of AM throughout the acquisition lifecycle, where prudent. The policy advocates for the deliberate and thoughtful use of AM.

Finally, we will continue to align resources against our priorities through targeted reductions in spending for areas that do not directly contribute to the National Defense Strategy. This includes forgoing additional incremental upgrades to some legacy systems, reassessing acquisition objectives, or divesting of fielded programs to free up resources for Modernization Priorities.

CONCLUSION

The Army is 18 months into the biggest transformational change since the 1970s to modernize and build a multi-domain-capable force, and we are making tremendous progress. The 2019 Army Modernization Strategy lays the foundation for a modernized Army capable of conducting MDO as part of an integrated Joint Force by 2028, and

ready to conduct MDO across an array of scenarios by 2035. Today's Army Modernization efforts are linked directly to challenges outlined in the National Defense Strategy, and are focused on the enduring Army Modernization Priorities.

To be clear, the Army will never be 'done' modernizing. The years 2028 and 2035 are important way stations, and good markers to use to make sure we deliver timely results. We're laying the foundations now to make sure the Army continues to modernize for the future after 2035, and the one after that.

Army senior leader emphasis is on enabling the AME. By working together, the Army modernization enterprise can simplify the Army's complex processes and procedures. We are leveraging authorities derived from Congress to streamline and improve the way we do business – optimizing our resources to make the Total Army and Joint Force more lethal, capable, and efficient.

The Army is moving quickly to modernize – and we are seeing tremendous results. With continued support from Congress, including sufficient, predictable, sustained, and timely funding, the Army will build and maintain a modern, lethal force capable of defending the Nation today and in the future fight.

Thank you again for this opportunity to discuss Army Modernization and for your strong support of our Soldiers, Army Civilians, and their Families. We look forward to your questions.