



July 2024

ARMY MODERNIZATION

Actions Needed to Support Fielding New Equipment

Highlights of [GAO-24-107566](#), a report to the Committee on Armed Services, House of Representatives

Why GAO Did This Study

In 2019, the Army revised its core process to organize, staff, equip, and train forces. The Army uses ReARMM to prepare forces for combat, while intending to field new equipment on a more predictable schedule, to ensure that units train and deploy with the most modern weapon systems.

House Report 117-397 accompanying a bill for the National Defense Authorization Act for Fiscal Year 2023 includes a provision for GAO to assess the status, progress, budget implications, and potential challenges of implementing ReARMM. In this report, GAO describes the Army's (1) investments in modernization and examines the extent to which the Army has (2) made progress in implementing ReARMM and (3) supported planning for new equipment to be fielded through ReARMM. This is a public version of a sensitive report GAO issued in April 2024. GAO omitted information DOD deemed Controlled Unclassified Information.

GAO reviewed Army budget materials, analyzed information on the implementation of ReARMM and efforts to support planning for new modernized equipment, and interviewed Army officials.

What GAO Recommends

GAO is making the following three recommendations. The Army should (1) implement corrective actions to ensure equipment meets condition standards before transfer, (2) determine and adjust processes to better complete planning elements before fielding, and (3) document those process adjustments. The Army concurred with GAO's three recommendations.

View [GAO-24-107566](#). For more information, contact Diana Maurer at (202) 512-9627 or MaurerD@gao.gov.







ARMY MODERNIZATION

Actions Needed to Support Fielding New Equipment

What GAO Found

The Army's new approach to generate ready forces, the Regionally Aligned Readiness and Modernization Model (ReARMM), is key to the Army realizing its modernization investments. These investments have totaled \$46.5 billion since fiscal year 2021. The Army has adopted new acquisition approaches to rapidly develop multiple types of modernized equipment, which it has categorized into six modernization priorities. Using ReARMM, the Army had fielded six new priority equipment efforts as of November 2023, with ten more scheduled over the next 2 years (see table).

Army Modernization Priorities with Number of Efforts Fielded or Planned by Fiscal Year 2025, as of November 2023

	 Air and missile defense	 Future vertical lift	 Long range precision fires	 Network	 Next generation combat vehicle	 Soldier lethality
Fielded	1	1	—	3	1	—
Planned fielding date	2	—	3	—	1	4

Source: GAO analysis of Army information. | GAO-24-107566

Since it began implementing ReARMM in fiscal year 2020, the Army has generally met its deployment requirements, according to officials. It has organized most of its units, such as brigade combat teams, into ReARMM phases, including one designated for equipping. It has also aligned the units to specific geographic regions. However, some Army National Guard units received equipment, transferred from regular Army units, that was in poor condition. This led the National Guard units to incur unexpected costs, additional labor hours, and training delays. For example, beginning in May 2022, the Army transferred 138 displaced Bradley Fighting Vehicles to the Tennessee Army National Guard. The Army is planning to transfer additional equipment to the Army National Guard under ReARMM. Identifying and implementing corrective actions to reasonably assure that transferred equipment meets mission-capable condition standards would reduce the risk of units incurring unexpected costs and delays in their modernization and training.

The Army has fielded new equipment to the first units before completing some key planning elements, such as building facilities, assigning personnel, and planning for training. The Army is required to use a process to identify, approve, and resource new requirements within each relevant planning element. However, GAO analysis of Army documents found that as of November 2023, the Army fielded six of the previously discussed new priority equipment items with at least one incomplete planning element at the time that the first unit received them. Further, the Army fielded the majority of these items with three or more incomplete planning elements at the time that the first unit received them. When the Army fields new equipment to units without fully completing the planning elements, units may not be well positioned to operate the new equipment. By adjusting its planning elements processes so that they are completed earlier and documenting these changes, the Army will be better able to complete all elements in time for fielding. The Army would also be better able to support units that are operating and maintaining the new equipment.

Contents

Letter		1
	Background	4
	The Army Has Invested Billions and Fielded New Equipment to Units through Its Modernization Efforts	11
	The Army Has Made Progress Implementing ReARMM but Some Transferred Equipment Has Been in Poor Condition	15
	The Army Has Challenges Fully Completing Planning Elements Prior to Fielding New Equipment	20
	Conclusions	25
	Recommendations for Executive Action	26
	Agency Comments	26
Appendix I	Objectives, Scope, and Methodology	28
Appendix II	Comments from the Department of Defense	31
Appendix III	GAO Contact and Staff Acknowledgments	37
Figures		
	Figure 1: ReARMM Weekly Meetings and Army Biannual Conferences	5
	Figure 2: ReARMM Phases, General Lengths, and Activities	7
	Figure 3: Army Example of Incremental Modernization	8
	Figure 4: DOD Planning Elements that Support Fielding New Army Equipment	9
	Figure 5: Army Process to Integrate Required Changes to Support Fielding New Equipment	11
	Figure 6: Army Budget Requests by Modernization Priority, Fiscal Years 2021 through 2024	12
	Figure 7: First-Unit Fielding Dates Planned by the End of Fiscal Year 2025 for Modernization Priorities, as of November 2023	14
	Figure 8: Army Modernization Examples of Upgraded, New, and Priority Equipment	17

Abbreviations

CUI	Controlled Unclassified Information
DOD	Department of Defense
G-3/5/7	Army Headquarters, Office of the Deputy Chief of Staff for Operations, Plans, and Training (G-3/5/7)
ReARMM	Regionally Aligned Readiness and Modernization Model

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.



July 15, 2024

The Honorable Mike Rogers
Chairman
The Honorable Adam Smith
Ranking Member
Committee on Armed Services
House of Representatives

In 2019, the Army decided that it needed a better way to ensure that deploying units were equipped with the most modern weapon systems and equipment. The Army revised its force generation process to meet this goal. Force generation is the Army's core process to organize, staff, equip, and train forces before they are deployed in support of national security strategies and guidance. In September 2020, the Army began transitioning its force generation process to a new approach, the Regionally Aligned Readiness and Modernization Model (ReARMM). The Army uses ReARMM to prepare forces for combat while fielding new equipment on a more predictable schedule, to ensure that units train and deploy with the most modern equipment.¹

ReARMM is key, according to the Army's modernization strategy, to getting new and improved capabilities into the hands of soldiers in a predictable manner to balance current demands with future modernization.² Army modernization is an initiative to update Army forces with improved capabilities, including by upgrading existing or developing new equipment.

The Army's adoption of ReARMM comes at a time when it is also accelerating the development and fielding of new capabilities. Senior officials testified to Congress in April 2023 that the Army has moved further along on its modernization path due to improvements in its

¹Fielding refers to the process that the Army uses to provide new or upgraded equipment to a unit and ensure that the unit can operate the equipment in its operational environment.

²See U.S. Army, *Army Modernization Strategy: Investing in the Future* (2021). A capability is the Army's ability to achieve desired effects with ready units, organizations, and systems required to meet the requirements of the National Military Strategy. Two examples of capabilities are (1) the ability to defend against incoming missiles, artillery, and drones; and (2) the ability to move successfully around a combat zone.

materiel development and acquisition processes for new equipment.³ Additionally, the officials reported that the Army began fielding combat units with newly developed, modernized equipment in fiscal year 2023 and had plans to field additional items in fiscal year 2024.

The Army's past efforts at modernization have included several weapon system acquisition programs that were ultimately cancelled. We have repeatedly reported on the Army's acquisition challenges. In 2018, we reported that the Army had not established processes for evaluating its near-term modernization efforts against its overarching objective of being able to decisively defeat near-peer adversaries.⁴ In 2019, we reported that the Army planned to begin weapon systems development at a lower level of maturity than what is recommended by leading practices.⁵

House Report 117-397, accompanying a bill for the National Defense Authorization Act for Fiscal Year 2023, included a provision for us to assess the status, progress, budget implications, and potential challenges of implementing ReARMM.⁶ In this report, we describe the Army's (1) investments in modernization and examine the extent to which the Army has (2) made progress in implementing ReARMM and (3) supported planning for new equipment to be fielded through ReARMM.

This report is a public version of a sensitive report that we issued in April 2024. DOD deemed some of the information in our April report to be CUI,

³Douglas R. Bush, Assistant Secretary of the Army for Acquisition, Logistics, and Technology and Army Acquisition Executive; General James E. Rainey, Army Futures Command Commanding General; and Major General Michelle A. Schmidt, Deputy Chief of Staff of the Army, G-8, Director, Force Development, *On the Fiscal Year 2024 Army Modernization Program*, testimony before the Senate Committee on Armed Services, Subcommittee on Airland, 118th Cong, 1st sess., April 18, 2023.

⁴GAO, *Army Modernization: Actions Needed to Measure Progress and to Fully Identify Near-Term Costs*, GAO-18-604SU (Washington, D.C.: Sept. 28, 2018).

⁵GAO, *Army Modernization: Steps Needed to Ensure Army Futures Command Fully Applies Leading Practices*, [GAO-19-132](#) (Washington, D.C.: Jan. 23, 2019). The Army has not implemented one recommendation from this report—for the Army Futures Command to apply leading practices as they relate to technology development, particularly that of demonstrating technology in an operational environment prior to starting system development. The Army agreed with this recommendation and reports to have partially addressed it by taking actions to identify and remove infeasible or immature technologies consistent with leading for acquisition. However, to fully address this recommendation the Army will need to demonstrate that the technologies it is developing are matured in accordance with leading practices.

⁶H.R. Rep. No. 117-397, at 97-98 (2022).

which must be protected from public disclosure. Therefore, we omit CUI information in this report about equipment transferred through ReARMM and actions by the Army to address challenges associated with these transfers; the frequency to which at specific planning elements were incomplete before fielding; and examples of new equipment fieldings where the planning was not fully complete. Although the information provided in this report is more limited, we address the same objectives in it as the sensitive report and use the same methodology.

To address these objectives, our review focused on the Army's efforts under ReARMM to prepare modernized combat forces.⁷ For objective one, we reviewed Army budget materials to describe the Army's modernization priorities and investment amounts as of November 2023. For objective two, we assessed and evaluated the Army's progress to implement ReARMM against Army guidance. For objective three, we assessed the Army's efforts to support planning for new equipment to be fielded through ReARMM against Army guidance on capability development. For each objective, we reviewed relevant documents and interviewed cognizant Army officials. Appendix I of this report provides a detailed description of our objectives, scope, and methodology.

The performance audit upon which we based this report was conducted from September 2022 to April 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We worked with DOD from May 2024 to July 2024 to prepare this unclassified version of the original sensitive report for public release. This public version was also prepared in accordance with these standards.

⁷We did not focus on some of the other elements of ReARMM's design, such as the Army's plan that implementing it would provide stability and predictability to soldiers and their families, as well as synchronize resources to support training and deployment requirements.

Background

ReARMM and Army Modernization

According to the 2021 Army Modernization Strategy, ReARMM will serve as the means to synchronize actions among key Army components to incorporate future capabilities into the force, including putting updated and new weapon systems and other equipment into the hands of Army soldiers. The modernization strategy identifies six materiel modernization priorities to develop the warfighting capabilities needed in a major conflict with a potential near-peer adversary.⁸ The priorities consist of various efforts to develop technologically advanced new equipment and upgrades to existing systems. The strategy also identifies force structure changes, such as developing new types of units, so that the Army can operate in air, land, maritime, space, and cyberspace at the same time by 2035. The Army has issued strategic guidance for updating its forces and equipment with improved capabilities.⁹ By using ReARMM, the Army is scheduling when to field this new and modernized equipment to designated units in a systematized way.

Army Headquarters established a governance structure to execute the Army's modernization strategy and to prioritize and synchronize, among other things, Army equipment fielding in support of modernization. Key Army components that take part in this structure are the Army Headquarters, Office of the Deputy Chief of Staff for Operations, Plans, and Training (G-3/5/7) (which chairs the effort); Army Futures Command; Army Training and Doctrine Command; Army Forces Command; and Army Materiel Command. The structure includes operational planning team groups; a weekly working group with the Deputy Chief of Staff (G-3/5/7); and four bi-annual, Army-wide conferences. In addition, the Army communicates ReARMM business processes through Execute Orders,

⁸The six modernization priorities are: Air and Missile Defense, Future Vertical Lift, Long Range Precision Fires, Network, Next Generation Combat Vehicles, and Soldier Lethality. Soldier Lethality includes new equipment for close combat, including night vision goggles and rifles.

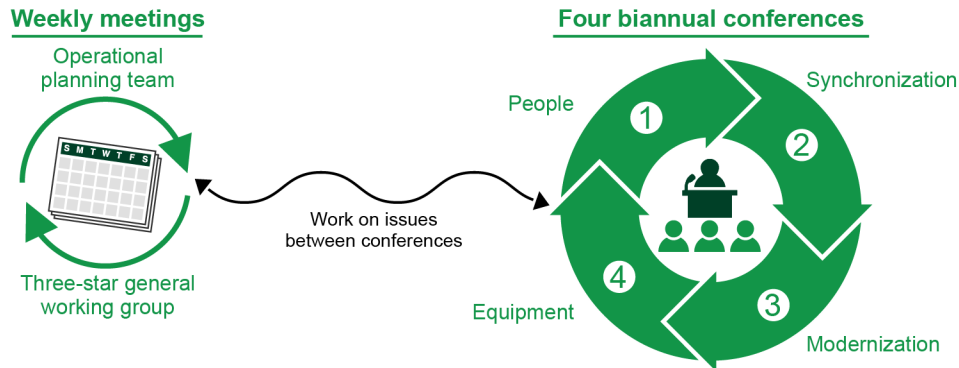
⁹Specifically, a 2017 Army memorandum identified the Army's modernization priorities and the Army also issued modernization strategies in 2019 and 2021. Secretary of the Army and Army Chief of Staff Memorandum, *Modernization Priorities for the United States Army* (Oct. 3, 2017); U.S. Army, *Army Modernization Strategy: Investing in the Future* (2019); U.S. Army, *Army Modernization Strategy: Investing in the Future* (2021).

and plans to add an Army regulation and an Army pamphlet when ReARMM is fully operational.¹⁰

The Army uses four biannual conferences to synchronize the Army enterprise throughout the year.¹¹ Each of the conferences has a specific focus: people; synchronization of resource allocation planning for units; modernization; and equipment. Planning for a conference structure involves small groups, operational planning teams, and other reviews that develop the topics and issues that need to be addressed at the conference. A conference builds on the last conference's work. For example, at modernization conferences, Army leaders schedule equipment distributions for the time periods when units are available to receive and train on new equipment. The Army uses the equipping plans to inform the people-focused conference, where Army leaders review personnel requirements, staffing guidance, and other personnel issues to ensure units have the right number of people with the necessary skills.

Figure 1 depicts the Army's ReARMM weekly meetings and the biannual conferences the Army uses to synchronize the Army enterprise.

Figure 1: ReARMM Weekly Meetings and Army Biannual Conferences



Source: GAO analysis of Army documents. | GAO-24-107566

¹⁰The Army planned for ReARMM to be fully implemented by January 2023 but has not yet reached this milestone. It finalized its revised ReARMM implementation Execute Orders in March 2024 and continues to work to finalize its revised regulation for force generation to reflect changes associated with ReARMM. According to Army officials, Army operational support to Ukraine following the Russian invasion in 2022 contributed to delays in implementation.

¹¹In addition to addressing ReARMM specific topics, the conferences also support other major Army processes, including planning for resource allocation and ready forces.

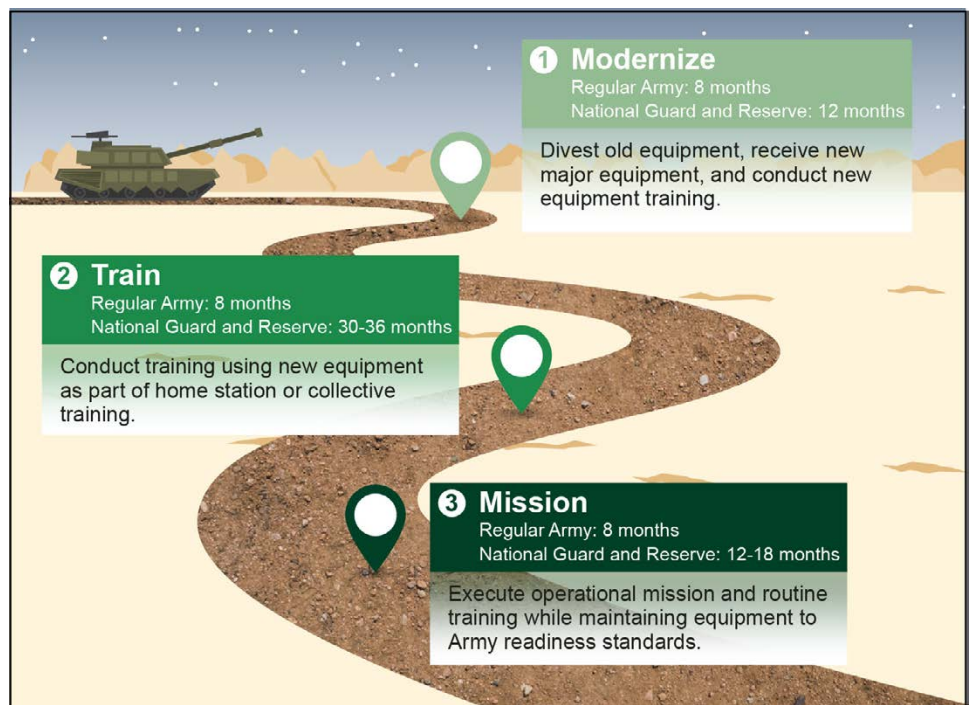
ReARMM Mission Lines and Unit Life Cycles

The Army uses ReARMM to organize units (such as brigade combat teams and combat aviation brigades) into mission lines and unit life cycles. These mission lines and unit life cycles help Army leaders balance modernization efforts with the staffing and training needed to prepare combat-ready units for deployment. ReARMM assigns combat units to combatant commands, to be globally available, or aligns them regionally.¹² A unit moving through ReARMM generally will proceed through three phases—modernization, training, and mission—though the length of the specific life cycle will depend on the number of units assigned to a mission line.¹³ Figure 2 details the phases, general lengths, and activities associated with each of the phases.

¹²Army Execute Order 152-24, *Implementation of the Regionally Aligned Readiness and Modernization Model (ReARMM)* (Mar. 1, 2024). The Department of Defense has eleven unified combatant commands, including seven with geographic areas of responsibility. The Army maintains control over its own forces, which it provides to fulfill combatant commanders' requests for forces.

¹³For example, the Army has assigned five armored brigade combat teams to a single mission line supporting U.S. European Command to ensure that there is at least one such unit deployed to Europe at any given time.

Figure 2: ReARMM Phases, General Lengths, and Activities



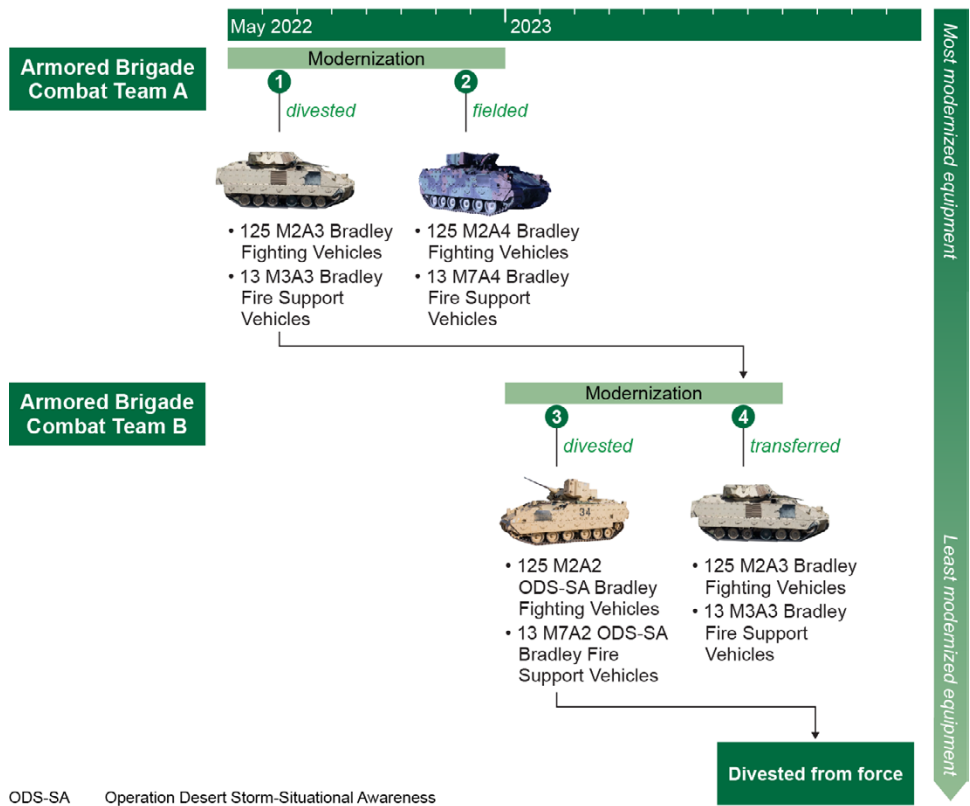
Source: GAO analysis of Army information; GAO (illustration). | GAO-24-107566

In addition, ReARMM identifies units to be prioritized for modernization, as the Army does not intend for all units to receive new equipment. Instead, the Army plans to modernize the force incrementally over time by fielding new capabilities to units in priority.¹⁴ Then, it plans to transfer the older, now displaced equipment sets to less modernized units while eventually disposing of the oldest equipment from the force (see fig. 3).¹⁵

¹⁴See Department of the Army Pamphlet 71-32, *Force Development and Documentation Consolidated Procedures* (Mar. 21, 2019). Specifically, this Army guidance notes that the Army cannot procure quantities of equipment to field the newest capability to the entire force, which will result in multiple variants of a capability being simultaneously in use.

¹⁵For the purposes of this report, an equipment set is a full complement of equipment that is enough to support the entire unit receiving it, so that, for example, the unit is not left with a mix of old and new equipment.

Figure 3: Army Example of Incremental Modernization



Source: GAO analysis of Army information; U.S. Army Recruiting Command/L.Poirier; U.S. Army/Staff Sgt. T. Lowery, and U.S. Army Reserve/Specialist D. Pierce (photos). | GAO-24-107566

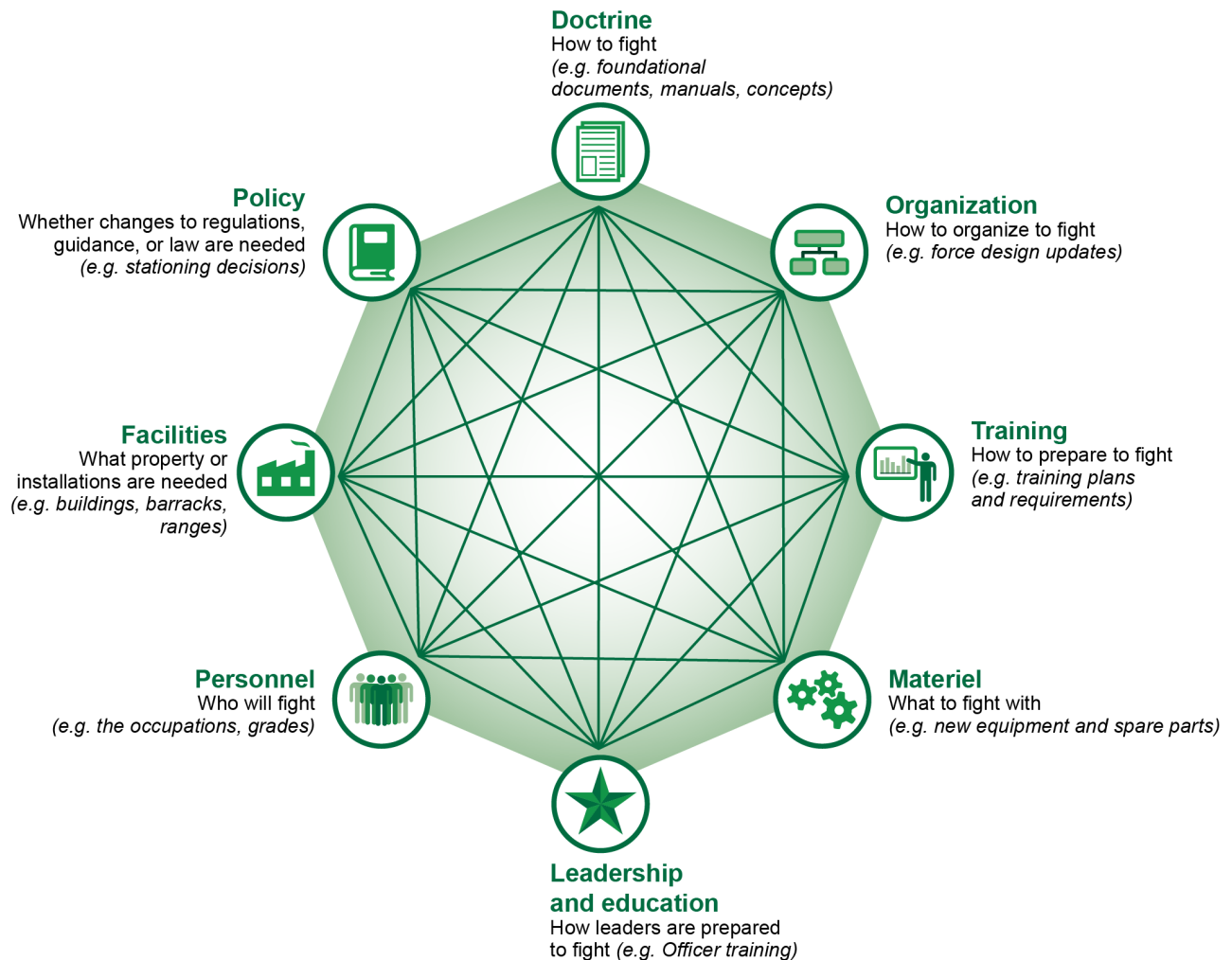
According to Army officials and ReARMM guidance, by scheduling units through “modernize” and “training” phases before deployment, the Army intends that only units in a “mission” phase (or those classified as continuously employed) may be used to satisfy a requirement for forces.¹⁶ By enforcing this restriction, the Army plans to ensure units are appropriately ready and that a portion of the force is available for modernization, while other units are training to relieve a unit returning from deployment.

¹⁶According to ReARMM guidance, continuously employed units are generally units in a constant mission standing, such as corps and division headquarters units, or units that are low in inventory but in high demand. Continuously employed units are in a constant mission stance but also have dedicated, recurring modernization phases.

Army Processes to Support Fielding New Equipment

The Army uses integrated processes to determine the requirements and resources needed for changes within doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (hereafter, “planning elements”) that help successfully field new equipment. These eight planning elements are shaped by DOD’s planning element framework (see fig. 4).

Figure 4: DOD Planning Elements that Support Fielding New Army Equipment



Source: GAO analysis of Department of Defense and Army information; GAO (icons). | GAO-24-107566

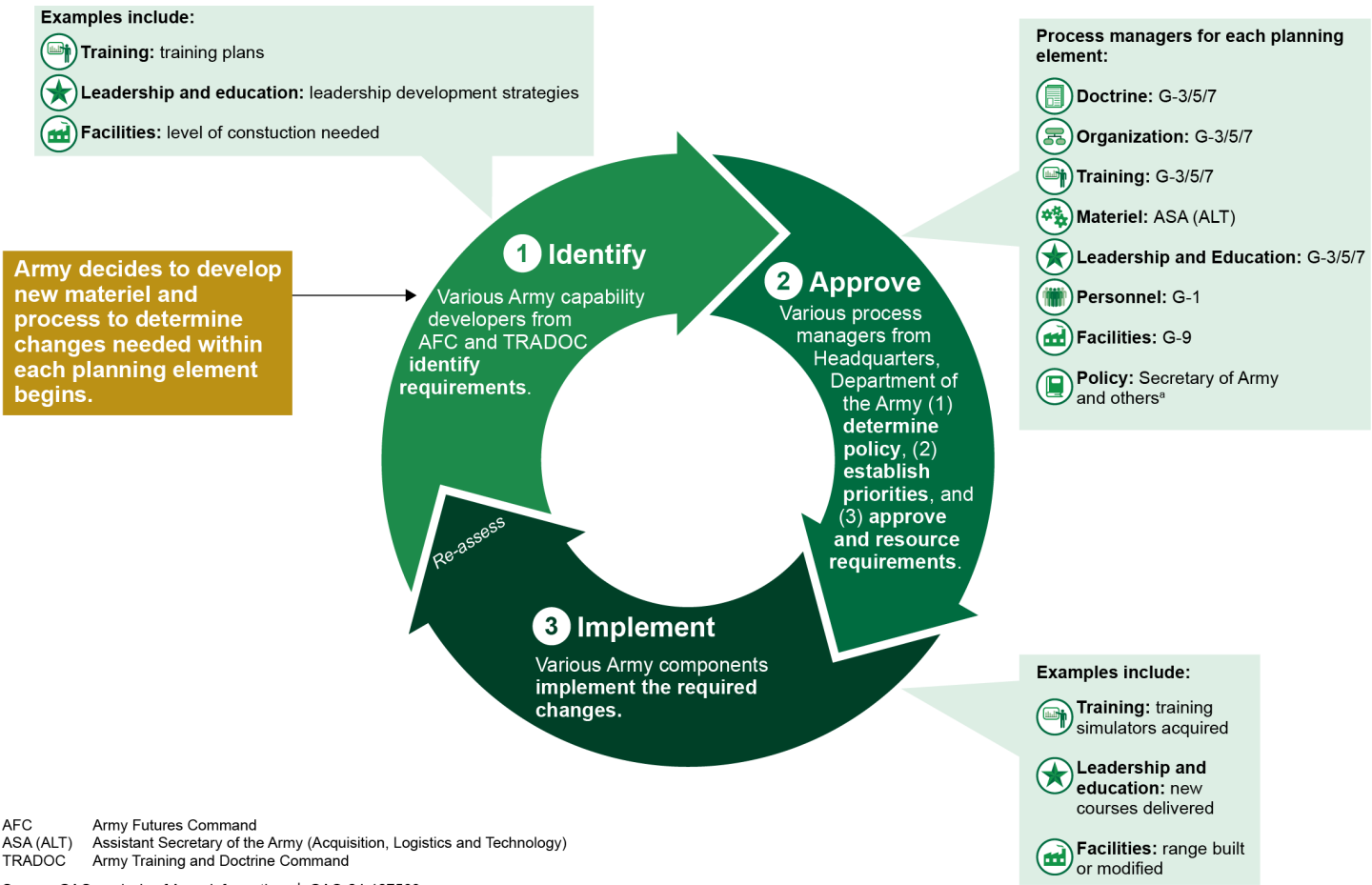
The planning elements of this framework are integrated, and adjustments made to one planning element can require changes to others. For

example, a change in materiel, such as new modernized equipment, may require a unit that receives it to change: (1) how it trains; (2) what personnel it needs (e.g., number of personnel and their military occupational specialties); and (3) what facilities it needs to train, maintain, and store the new equipment. Similarly, changes in one area—such as facilities—can necessitate changes to training and personnel. As such, using the planning element framework can be an iterative process.

The Army Deputy Chief of Staff (G-3/5/7) is the lead integrator and synchronizer across force modernization planning elements.¹⁷ Various Army Headquarters offices have a “process manager” role whereby they exercise primary responsibility for managing and integrating one or more planning elements. In addition, numerous Army components are responsible for taking actions to implement needed changes (see fig. 5).

¹⁷See Army Regulation 5-22, *The Army Force Modernization Proponent and Integration System* (July 13, 2023). For more information on how the Army incorporates planning element changes into force management, see Army Regulation 71-32, *Force Development and Documentation Consolidated Policies* (Mar. 20, 2019) and Department of the Army Pamphlet 71-32.

Figure 5: Army Process to Integrate Required Changes to Support Fielding New Equipment



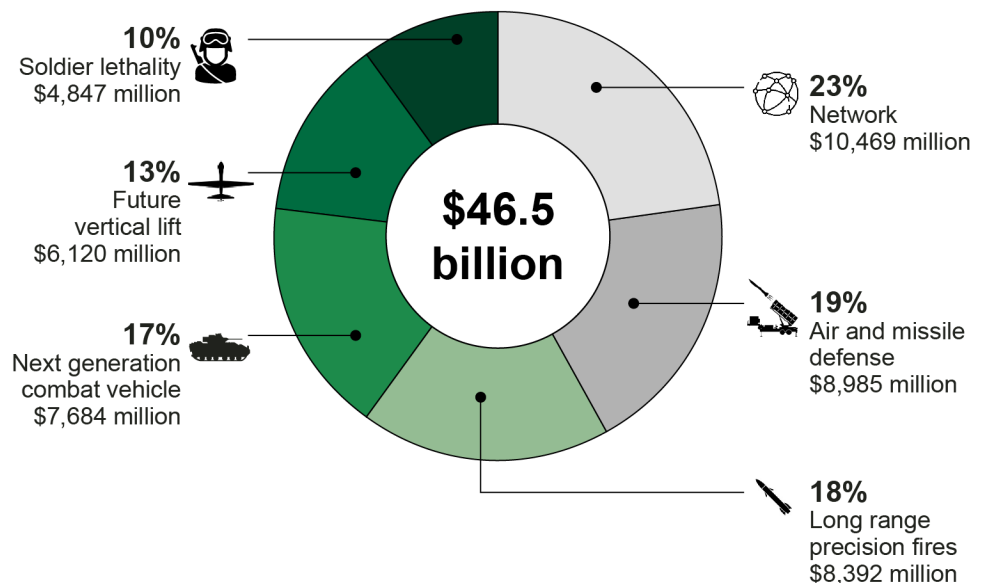
Note: "Others" refers to principal Army Headquarters officials.

The Army Has Invested Billions and Fielded New Equipment to Units through Its Modernization Efforts

The Army’s modernization efforts have included investing in new equipment so that it can adapt to the challenges posed by technological

improvements in capabilities by near-peer competitors.¹⁸ The Army is focusing these efforts on six modernization priorities, each of which include multiple efforts to develop new equipment. Since fiscal year 2021, the Army has requested a total of \$46.5 billion to invest in these six priorities (see fig. 6).

Figure 6: Army Budget Requests by Modernization Priority, Fiscal Years 2021 through 2024



Source: GAO analysis of Army information; GAO (icons). | GAO-24-107566

Note: The total includes Army Procurement and Research, Development, Testing, and Evaluation budget requests.

The Army has used the DOD's updated acquisition framework to acquire and field new equipment to warfighters in an accelerated manner.¹⁹ The

¹⁸See U.S. Army, *Army Modernization Strategy: Investing in the Future* (2021). The Army investments include Procurement and Research, Development, Test, and Evaluation (RDT&E) funding. According to the Army Modernization Strategy, the 2018 National Defense Strategy states that the Army must prioritize long-term strategic competition with China and Russia while deterring regional adversaries and sustaining irregular warfare competency.

¹⁹For more information on DOD's new acquisition framework, see DOD Instruction 5000.02, *Operation of the Adaptive Acquisition Framework* (Jan. 23, 2020) (incorporating change 1, effective June 8, 2022).

framework is comprised of six adaptive acquisition pathways.²⁰ Some of those pathways are designed to field new equipment to the warfighter more quickly than the traditional pathways. Several of the Army's new equipment modernization efforts are using these adaptive acquisition pathways. For example, the Army is developing the Next Generation Squad Weapon and Reconfigurable Virtual Collective Trainer using the middle tier acquisition rapid fielding pathway.²¹ This pathway enables DOD components to rapidly field production quantities of systems with proven technologies that require minimal development. The objective of this rapid fielding is to begin production within 6 months and complete fielding within 5 years of a program's start date.²²

















The Army has made progress in acquiring and delivering new priority equipment to soldiers. As of November 2023, the Army had either fielded or set fielding dates for 16 of these efforts by September 2025 (see fig. 7). The Army uses these "first-unit equipped" fielding dates to reflect when a system or item is issued to the designated first unit and training specified in the new equipment plan has been provided. After this date, the designated unit should have the ability to employ and maintain the system or item. The Army plans to field new equipment to other units as it becomes available to help reach its modernization goals.

²⁰DOD Instruction 5000.02. For more information, see GAO, *Weapon Systems Annual Assessment: Programs Are Not Consistently Implementing Practices That Can Help Accelerate Acquisitions*, [GAO-23-106059](#) (Washington, D.C.: June 8, 2023).

²¹The Reconfigurable Virtual Collective Trainer is a mobile, transportable trainer for collective tasks among different types of units that includes aviation and ground platforms, infantry collective maneuver training, collective gunnery training, and mission rehearsal. It enables unit collective and combined arms air-ground training for aviation and ground units. It is part of the Army Future Command's Cross-Functional Team for synthetic training environments, an enabling effort for the six modernization priorities. See U.S. Army, *Army Modernization Strategy: Investing in the Future* (2021).

²²DOD Instruction 5000.02.

Figure 7: First-Unit Fielding Dates Planned by the End of Fiscal Year 2025 for Modernization Priorities, as of November 2023

Modernization priority	Effort	Fielded or planned first unit fielding date
	Air and Missile Defense	
	Army Integrated Air and Missile Defense	 Sept. 2024
	Indirect Fire Protection Capability (IFPC)	 Sept. 2024
	Maneuver Short Range Air Defense	✓ Fielded
	Future Vertical Lift	
	Future Tactical Unmanned Aircraft System	✓ Fielded
	Long Range Precision Fires	
	Long-Range Hypersonic Weapon	 Sept. 2025
	Medium-Range Capability	 Sept. 2024
	Precision Strike Missile	 June 2025
	Network	
	Command Post Common Operating Environment	✓ Fielded
	Command Post Mobility/Survivability	✓ Fielded
	Unified Network	✓ Fielded
	Next Generation Combat Vehicle	
	Armored Multi-Purpose Vehicle	✓ Fielded
	Mobile Protected Firepower ^a	 Sept. 2025
	Soldier Lethality	
	Enhanced Night Vision Goggle-Binocular	 June 2024
	Integrated Visual Augmentation System	 June 2024
	Next Generation Squad Weapon - Automatic Rifle	 Mar. 2024
	Next Generation Squad Weapon - Rifle	 Mar. 2024

Source: GAO analysis of Army information; GAO (icons). | GAO-24-107566

Note: The first-unit fielding date reflects when a system or item is issued to the designated first unit and training specified in the new equipment plan has been provided.

^aIn 2023 the Army redesignated the Mobile Protected Firepower as the M-10 Booker Infantry Assault Vehicle.

The Army Has Made Progress Implementing ReARMM but Some Transferred Equipment Has Been in Poor Condition

The Army Has Made Progress Implementing ReARMM by Aligning Units to Geographic Regions, Developing and Meeting Timelines, and Fielding Equipment to Units

Since it began to implement ReARMM in fiscal year 2020, the Army met its initial goals of aligning units with geographic regions and providing forces to combatant commands; developing and meeting unit life cycle schedules; and fielding upgraded and new equipment to combat units, such as air defense systems.

- Aligned units and provided forces. The Army has prioritized particular units for modernization and generally aligned most of those units that are in the regular Army with geographic regions—primarily Europe and the Indo-Pacific—where they are expected to routinely deploy.²³ The Army also has aligned several regular Army units solely to a global response role. According to Army Headquarters and Army Forces Command officials, the Army has been able to meet combatant commander deployment requirements during the initial implementation of ReARMM.
- Developed and met scheduled timelines. The Army has developed ReARMM modernization schedules for most Army units, such as brigade combat teams.²⁴ Specifically, by April 2023 the Army had assigned ReARMM phases to about 91 percent of parent-level units under Army Forces Command, which is the largest provider of units in the regular Army, and to about 95 percent of Army Reserve parent-

²³Regular Army units are active-duty units, as opposed to the Army Reserve and Army National Guard. According to officials, National Guard units are generally aligned with the U.S. Central Command area of responsibility and the Army Reserve does not have designated units prioritized for modernization.

²⁴Under prior ReARMM guidance, the Army grandfathered in the unit modernization schedules that preceded ReARMM for fiscal years 2021 and 2022. See Army Execute Order 269-20, *Implementation of Regionally Aligned Readiness and Modernization Model (ReARMM)* (Sept. 2, 2020) (superseded by Army Execute Order 152-24 in March 2024).

level units.²⁵ In addition, the Army had assigned phases to about 70 percent of parent-level Army National Guard units as of April 2023.²⁶

Further, the Army has generally met timelines for ReARMM phases. The Army plans for each ReARMM phase to run for about 8 months for regular Army units. Our analysis of Army data found variation in the length of the modernization phase for some units but the average for regular Army units was scheduled for about 7 months, with a median of about 8 months.²⁷ According to Army Headquarters officials, scheduled variations in modernization phase length are often due to the complexity of the equipment being delivered to the unit. To accommodate these and other variations, ReARMM guidance states that Army Forces Command and other force providers will approve all ReARMM phase changes for their units and coordinate with Army Headquarters to manage the effects of changes greater than 3 months. According to Army Forces Command officials, they need approval from Army Headquarters if changes to unit timelines will affect units outside their command, but there had been no schedule changes requiring such approval as of September 2023.







- Fielded upgraded and new equipment to units. The Army has begun equipping units moving through ReARMM with upgraded versions of major equipment, such as the Bradley Fighting Vehicle, the Abrams tank, and the Stryker infantry carrier; as well as new equipment, such as the Joint Light Tactical Vehicle, which is replacing the High-Mobility Multi-Purpose Wheeled Vehicle. As previously discussed, the Army has also started to equip units with new, priority equipment through ReARMM, such as the Maneuver Short Range Air Defense and the Armored Multi-Purpose Vehicle (see fig. 8).

²⁵Parent-level units have command and control responsibilities or are designed to execute such responsibilities. See Army Regulation 220-1, *Army Unit Status Reporting and Force Registration—Consolidated Policies* (Aug. 16, 2022). Generally, subordinate units of a parent-level unit, such as battalions under a brigade combat team, also have assigned ReARMM phases.

²⁶These percentages are based on our analysis of data provided by the Army from the Army Synchronization Tool, which is the Army system of record for unit calendar data. The data were the most recent available at the time of our data request and include ReARMM phases that the Army has assigned to units through 2024.

²⁷We did not analyze whether units were adhering to their planned ReARMM training and mission phases because doing so fell outside the scope of our review. Army Forces Command officials stated that because Army units train through all phases of the ReARMM life cycle, unit commanders could realign training priorities to accommodate most changes to the ReARMM schedule without disrupting training overall. They also stated that units have generally deployed as planned during their mission phase.

Figure 8: Army Modernization Examples of Upgraded, New, and Priority Equipment

Upgraded		New	
	<p>Bradley Fighting Vehicle</p> <p>The Bradley is a full-tracked, medium armored vehicle that provides mobility, mounted firepower, and protection to mechanized infantry. The upgraded version includes seats to carry ten soldiers and a 25 mm Automatic Cannon.</p>		<p>Joint Light Tactical Vehicle (JLTV)</p> <p>The JLTV family of vehicles is an Army-led, joint-service program designed to replace a portion of each service's light tactical wheeled vehicle fleets. JLTV variants can carry weapons for close combat and haul utilities and shelters, among other things. The JLTV is not included in the Army's six modernization priorities.</p>
	<p>Abrams Battle Tank</p> <p>The Abrams tank is the Army's primary ground combat system. The tank is full-tracked, with a low profile, a 1,500 horsepower engine, 120 mm main gun, and special armor. The Abrams is among the heaviest and most powerful armored combat vehicles in the U.S. Army inventory.</p>		
Priority		Priority	
	<p>Stryker family of vehicles</p> <p>The Stryker is a medium-weight, 8-wheeled vehicle with 18 variants. The Army uses the Stryker in combat and combat support roles, including as armored personnel carriers, anti-tank guided missile vehicles, and medical evacuation vehicles.</p>		<p>Maneuver Short-Range Air Defense (M-SHORAD)</p> <p>The M-SHORAD is an air defense system mounted on the Stryker combat vehicle. It is designed to counter unmanned aerial systems and attack helicopters, among other things. Combining missiles, an automatic cannon, and machine gun, the system is designed to provide protection for ground forces.</p>
			<p>Armored Multi-Purpose Vehicle (AMPV)</p> <p>The AMPV replaces the Army's M113 family of vehicles. It will be used in five mission roles, including mission command and medical evacuation. The Army determined that development of the AMPV was necessary due to mobility, survivability, and force protection deficiencies identified with the M113.</p>

Source: Department of Defense, Army, Congressional Research Service, and Congressional Budget Office (information); U.S. Army/ Staff Sgt. C. Porter, Specialist B. Tomlinson, Mississippi Army National Guard, U.S. Army Reserve/Z. Mot, U.S. Army/G. Moumoulidis, BAE, and U.S. Army/J. Stafford (photos). | GAO-24-107566

Initial Equipment Sets Transferred Under ReARMM Included Numerous Items in Poor Condition

The Army has transferred two sets of major equipment that were in poor condition to Army National Guard units under ReARMM.²⁸ We omitted specific details on the transferred equipment because DOD deemed the information to be CUI. One instance includes 138 Bradley fighting vehicles that were transferred from a regular Army unit to the Tennessee Army National Guard, replacing an even earlier version of the Bradley then being used by Army National Guard units in three states.²⁹ As a result, to restore the equipment to “fully mission capable” status, the Army National Guard incurred unexpected costs for spare parts and labor hours and experienced training delays.³⁰

Recognizing that this transfer posed such challenges, the Army has discussed upcoming equipment transfers and required condition standards during various ReARMM working groups, synchronization conferences, and operational planning teams. We omitted specific details on actions the Army has taken to address this challenge because DOD deemed this information to be CUI. Army officials stated that this was the first transfer of major equipment to a National Guard unit in support of the Army’s incremental modernization strategy and fielding plan. In preparing for a second, upcoming transfer of Bradley vehicles, in September 2023, Army guidance states that the affected vehicles must be in the condition required under the Technical Manual 10/20 series standards and assigns financial responsibility, mainly to Army Forces Command, for maintenance and repairs.³¹

Even so, officials across the Army stated that equipment maintenance has been a long-standing problem that predates the implementation of

²⁸According to National Guard documents, the equipment needed maintenance and repairs to bring it to the standards outlined in the Army Technical Manual 10 series and Technical Manual 20 series to meet the Technical Manual 10/20 standards for transferred equipment, as required in Army guidance. See Department of the Army Pamphlet 710-2-1, *Using Unit Supply System (Manual Procedures)* (Dec. 1, 2016); Army Regulation 750-1, *Army Materiel Maintenance Policy* (Mar. 2, 2023).

²⁹The Bradleys were transferred to the Tennessee Guard, a subordinate unit in Texas, and to a training base in Mississippi.

³⁰Fully mission capable is a material condition indicating that systems and equipment are safe and have all mission-essential subsystems installed and operating as designated by applicable Army regulation. See Department of the Army Pamphlet 750-1, *Army Materiel Maintenance Procedures* (Feb. 2, 2023).

³¹Army Fragmentation Order 1 to Execute Order 327-23, *Bradley Fighting Vehicle (BFV) Modernization* (Sept. 6, 2023). The Technical Manual 10/20 series standards are those specified in the various Army Technical Manuals beginning with 10- or 20-.

ReARMM.³² They also stated that the problem is generally due to unit commander decisions, and that the Army does not hold unit commanders accountable for not taking care of equipment. In addition, Army Forces Command officials noted that units already are funded to maintain equipment to condition standards, as required by guidance.

Army Regulation 750-1 states that the Army has one maintenance standard and requires equipment to meet this standard, including for divesting units before transferring equipment to a receiving unit.³³ Among other things, to meet this standard, the equipment must be fully mission capable. Army Pamphlet 750-1 further states that commanders are to provide resources and establish a command climate to ensure equipment maintenance is conducted in accordance with the regulation.³⁴ In addition, Standards for Internal Control in the Federal Government state that management officials should evaluate and document internal control deficiencies and determine appropriate corrective actions on a timely basis.³⁵ Such deficiencies can be in the design, implementation, or operating effectiveness of the internal control.

Officials stated that they intend to use annual ReARMM guidance and transfer-specific guidance to ensure the condition of transferred equipment because it can take too long to revise Army guidance. However, the fiscal year 2024 ReARMM execute order does not expressly lay out a means to ensure equipment condition.³⁶

³²For more information on Army challenges with maintaining its equipment, see for example, GAO, *Combat Helicopters: Actions Needed to Fully Review Readiness Goals and Address Long-Standing Maintenance Challenges*, GAO-22-104607SU (Washington, D.C.: Feb. 15, 2022); *Military Depots: Army and Marine Corps Need to Improve Efforts to Address Challenges in Measuring Performance and Planning Maintenance Work*, GAO-20-401 (Washington, D.C.: July 16, 2020); *Military Readiness: Analysis of Maintenance Delays Needed to Improve Availability of Patriot Equipment for Training*, GAO-18-447 (Washington, D.C.: June 20, 2018).

³³Army Regulation 750-1.

³⁴Department of the Army Pamphlet 750-1.

³⁵GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G (Washington, D.C.: September 2014). Internal control is a process effected by the oversight body, management, and other personnel that provides reasonable assurance that objectives will be achieved.

³⁶During final processing of our report, the Army published Execute Order 152-24 and described several ongoing Army efforts in this area in comments provided on a draft of this report (reprinted in Appendix II). We have not comprehensively assessed Execute Order 152-24 or the effects it may have in this area.

Consequently, this ReARMM order may not be sufficient to hold unit commanders accountable if they transfer equipment in poor condition.³⁷

Given that the Army is using the transfer of equipment sets to incrementally modernize elements of the force under ReARMM, identifying and implementing corrective actions to reasonably assure that transferred equipment meets condition standards would improve efficiency and accountability. If equipment does not meet condition standards when transferred, receiving units will continue to be at risk of incurring unexpected costs.

The Army Has Challenges Fully Completing Planning Elements Prior to Fielding New Equipment

While the Army has successfully fielded rapidly developed new materiel (as previously discussed), it has fielded this materiel without fully completing requirements for the other seven planning elements, such as training, facilities, and personnel (see fig. 4). The Army has taken steps to manage the risk of units not having some of the planning elements completed, such as training strategies or necessary facilities for the new equipment. However, the Army expects to continue to face challenges completing requirements in some of the other planning elements before fielding new equipment.

The Army Has Fielded New Equipment without Completing Some Planning Elements

The Army has fielded new equipment to the first units before completing some key planning element requirements, such as building facilities, assigning personnel, and planning for training. The Army is required to use a process to identify, approve, and resource new requirements within each relevant planning element.³⁸ The Army is to then take action to make required changes across all relevant planning elements before fielding new equipment to units. To complete a planning element, the Army assesses if the required changes and resources are on track for implementation with no issues requiring senior leader decisions.

Our analysis of Army documents found that as of November 2023, the Army fielded six of the previously discussed new priority equipment items with at least one incomplete planning element at the time that the first unit received them. Further, the Army fielded the majority of these items with three or more incomplete planning elements at the time that the first unit

³⁷The Army further stated that it addresses the expected condition of equipment being transferred from regular Army units in specific orders on a case-by-case basis.

³⁸See Army Regulation 71-9, *Warfighting Capabilities Determination* (June 29, 2021).

received them.³⁹ (We omitted specific details on the frequency that individual planning elements were incomplete before the first unit received them because DOD deemed the information to be CUI). Of these, the Army fielded one enabling effort without any complete planning elements. The Army most often fielded those equipment items and enabling efforts without completing the required changes for facilities, training, and policy. DOD stated it did so to meet urgent requirements, often for critical protection of soldiers, as well as achieving goals set out in the National Defense Strategy.

The Army Has Taken Steps to Manage the Risk of Fielding Equipment without Fully Completing All Planning Elements

The Army has relied on ReARMM's working groups and conferences to manage the risk of fielding equipment without having completed all planning elements. When the Army fields new equipment to units without fully completing the planning elements, units may not be well positioned to operate the new equipment. We omitted specific examples of the Army fielding new equipment without fully completing the planning elements because DOD deemed the information to be CUI. Recognizing the risk, Army officials told us that decision-makers assess whether the first unit equipped with the item can adequately and safely employ and train with the new equipment.⁴⁰ The complexity of addressing risk and completing the planning elements varies. According to Army officials, the ReARMM working groups can manage risk by completing some planning elements relatively easily, such as requesting an environmental impact analysis for facilities. Other planning elements can be more complicated to complete, such as changes to the Army's force structure.

To manage the potential risk of not completing planning elements before fielding, Army leaders must make many decisions. For example, in 2023, Army Future Readiness Conference attendees identified 91 decisions that leaders needed to make to fully complete planning elements, such as decisions related to force structure and stationing. Moreover, according to the Army, late decisions in one planning element requirement can affect the timeliness of completing other planning elements. For example, decisions on where to station new equipment do not just affect how or whether to build or modify facilities—they also affect the timeliness of

³⁹In addition to the items previously discussed, our analysis also included two enabling efforts for the six modernization priorities: One World Terrain and the Training Simulation Software, Training Management Tools, and Live Mission Command for the Synthetic Training Environment Information Systems.

⁴⁰The first-unit equipped date is the first scheduled date for fielding or handoff of a new materiel system to the designated first unit and for providing training specified in the new equipment plan.

providing new training and making personnel changes. According to Army officials, if leaders do not make the required stationing decisions, this can affect the quality of training for units.

We highlight some of the Army's efforts to manage risk below:

- Working groups with senior leaders. In 2022, the Deputy Chief of Staff, G-3/5/7 began holding ReARMM weekly meetings to, among other things and according to Army officials, review the risks from unresolved issues with each new equipment's planning elements and resolve those issues through mitigation plans if the Deputy Chief of Staff determined the risk levels were unacceptable.⁴¹ According to officials, leaders determine mitigation plans on a case-by-case basis. As discussed previously, interim solutions may not meet operational unit needs. However, according to Army officials, the ReARMM weekly working group gives Army stakeholders, with varying levels of seniority, a chance to elevate their planning element issues. Army officials also hear from senior leaders at these meetings about decisions they have made. Further, the G-3/5/7 runs these meetings and, according to Army officials, has the authority to make decisions needed to resolve issues during the meetings.
- Biannual Conferences. As mentioned previously, the Army convenes four biannual conferences to identify and elevate issues about addressing required changes within the planning elements, among other things, across the Army. One of the conferences, the Army Future Readiness Conference, includes a working group related to planning element requirements and ReARMM. In May 2023, the working group shared challenges and decisions needed to complete the planning elements. The working group also considered ways to improve how the Army can make the required changes across the planning elements. For example, the working group recommended that materiel developers submit an initial description, prior to equipment development, of personnel changes, such as new skills or military occupational specialties, needed to introduce new equipment items into the Army.⁴²

⁴¹In addition to the ReARMM working groups, the United States Army Combined Arms Center also began holding a monthly force modernization forum, at which the Commanding General reviews issues with the planning elements and identifies decisions needed to address the planning elements.

⁴²A materiel developer is the research, development, and acquisition command, agency, or office assigned responsibility for the system under development or being acquired. Army Regulation 71-32.

-
- Updated guidance. The Army has issued guidance for the planning elements to, according to Army officials, better keep pace with the rate of fielding new materiel. In October 2023, the Army Futures Command issued a publication which, according to Army documentation and officials, requires Army officials to include planning element assumptions and their potential implications earlier in the capability development process.⁴³ In July 2023, the United States Army Training and Doctrine Command's Combined Arms Center issued an operational order which, according to Army documentation and officials, requires that officials include initial training plans and an estimate of the costs associated with those training plans so that the Army can consider them earlier in the process.⁴⁴ According to Army officials, these initial training plans are less precise but, by including earlier assumptions about the requirements and the costs needed, provide the Army with a better idea about how soldiers can train on the new equipment.

The Army Expects to Continue to Face Challenges in Completing Some Planning Elements

While the Army has taken some steps to complete the planning elements before fielding new equipment, it expects to continue to face challenges. In the challenges discussed below, we omitted details on the acquisition pathway, resourcing, and technical information for specific new equipment because DOD deemed the information to be CUI.

- Long time horizons. During the Army Future Readiness Conference in December 2022, the Army found that facilities, such as those for maintenance, training ranges, and places to park vehicles, present significant planning challenges because they can take years to plan and implement. The Army rapidly developed some new equipment in less than 5 years, but it may take the Army 5 to 10 years to plan and build facilities, including identifying the requirements, aligning resources, and conducting environmental analyses.
- Unknown requirements of new equipment. The Army developed equipment to provide new capabilities to soldiers. Army officials told us that, as some of the equipment is unique, meaning not similar to

⁴³See Army Futures Command, *Army Capabilities Integration & Development System (ACIDS) Process Guide* (Oct. 30, 2023). Capability development is the process of analyzing, determining, and prioritizing Army requirements for doctrine, training, leader development, organizations, soldier development, and equipment and taking actions to make the required changes within the force development process. Army Regulation 71-9.

⁴⁴See Combined Arms Center Operational Order #230705-6DQN, *Initial System Training Plan (I-STRAP) Implementation* (July 5, 2023).

Mobile Protected Firepower Vehicle

The Mobile Protected Firepower vehicle is designed to provide precision, long-range fires capability to Infantry Brigades to destroy enemy forces, bunkers, walls, and other light armored vehicles while remaining mobile.



Source: Assistant Secretary of the Army (Acquisition, Logistics and Technology) (information) and U.S. Army/B. Fuller (photo). | GAO-24-107566

existing capabilities, the Army cannot build on knowledge from prior requirements. Rather, these officials told us that the Army must determine the new requirements for the planning elements. Moreover, as the Army fields more unique equipment items, it will likely require more complex changes to the planning elements to complete them, according to these officials. For example, the officials told us the Mobile Protected Firepower vehicle (see sidebar), planned to be fielded in 2025, will require some new training ranges, which can take years to plan and involve significant costs.⁴⁵

In addition, according to Army officials, if the capability developers do not know the sustainment requirements, the Army cannot plan for types and number of personnel needed to maintain the equipment.⁴⁶ In contrast, the officials told us that when the Army fields modernized equipment to replace existing equipment, like the Extended Range Cannon Artillery, the Army may be able to leverage existing planning elements such as doctrine and personnel.⁴⁷

Army guidance provides that capability developers will determine and document requirements within each planning element to resolve or mitigate gaps with unacceptable risk and determine and take action to make, and synchronize the development of, those required planning element changes.⁴⁸ Under Army Training and Doctrine Command guidance, the planning elements should be in place by the time the Army fields new equipment to the first unit.⁴⁹ Further, the Army defines a successful fielding as occurring when it declares initial operational capability and the planning elements are either in place or there are

⁴⁵The Army redesignated the Mobile Protected Firepower as the M-10 Booker Infantry Assault Vehicle. Officials said that some installations have existing ranges and will not require new ones.

⁴⁶A capability developer is the command or agency that formulates warfighting requirements for the planning elements during the force development process and is also responsible for representing the end user during the full development and lifecycle process. Army Regulation 71-32.

⁴⁷As of March 2024, the Army announced that they cancelled the Extended Range Cannon Artillery program after its prototyping efforts concluded in late 2023.

⁴⁸Army Regulation 71-9. Additionally, the commanding general of the Army Training and Doctrine Command, in conjunction with the commanding general of the Army Futures Command, will take action to make the required changes and synchronize the development of planning element requirements to improve warfighting capabilities with minimum impacts on readiness during transition.

⁴⁹See Army Training and Doctrine Command Regulation 71-12, *U.S. Army Training and Doctrine Command Capability Management* (Oct. 3, 2012).

corrections in place.⁵⁰ Moreover, Standards for Internal Control in the Federal Government state that management should remediate identified internal control deficiencies on a timely basis, such as by completing and documenting corrective actions.⁵¹

The Army did not fully complete the planning elements by the time it began fielding new equipment because it has neither determined where there were opportunities for adjustments to its planning element processes, nor documented such adjustments, where appropriate. According to officials, the Army shortened the time required to develop materiel but did not adjust the other planning element processes. As such, the processes for the other planning elements could not keep pace with the accelerated development and fielding of new equipment.

Officials stated that, ideally, the Army would complete the planning elements by the time it fields new equipment. However, according to Army officials, finding opportunities to adjust the processes to keep pace with the accelerated materiel development for some planning elements is easier than for others. We omitted specific details on how the Army manages this by planning element because DOD deemed this information to be CUI. Even so, Army officials stated that if they identified requirements for the other planning elements earlier in the process, it could help them complete those planning elements in time for fielding.

If the Army adjusted its planning element processes and documented these changes where appropriate, it could improve its ability to complete planning elements in time for fielding and better support units to operate and maintain new equipment.

Conclusions

The Army has taken several steps to implement ReARMM since 2020, such as identifying priority units and fielding upgraded, new, and priority modernized equipment to units. However, the first two transfers of major equipment sets under ReARMM to Army National Guard units included equipment that did not meet required condition standards, according to officials. Without identifying and implementing a means to reasonably assure units transfer equipment that meets condition standards, receiving

⁵⁰Initial operational capability is attained when some units in the force structure scheduled to receive new, improved, or displaced equipment have received it and have the capability to operate and support the equipment effectively in their operational environment. See Department of the Army Pamphlet 770-2, *Procedures for Materiel Fielding* (July 16, 2021).

⁵¹GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

units will continue to be at risk of incurring unexpected costs and delays in their modernization and training.

Further, the Army has used accelerated acquisition approaches to work to field new equipment more quickly. (We omitted specific details on the planning challenges associated with accelerated fielding because DOD deemed this information to be CUI.) However, the Army may need to overcome challenges in planning that the units confront when equipment is first fielded without the remaining planning elements in place. Unless the Army is better able to ensure it completes the planning elements that units need to operate newly fielded equipment, soldiers may be poorly organized, trained and equipped to operate and maintain it until those planning elements are met.

Recommendations for Executive Action

We are making the following three recommendations to the Department of the Army:

The Secretary of the Army should ensure the ReARMM proponent, Headquarters, Office of the Deputy Chief of Staff for Operations, Plans, and Training (G-3/5/7), in coordination with other stakeholders as appropriate, identifies and implements corrective actions the Army can take to reasonably assure that equipment sets meet required condition standards before they are transferred to other units. (Recommendation 1)

The Secretary of the Army should ensure that process managers, in coordination with Headquarters, Office of the Deputy Chief of Staff for Operations, Plans, and Training (G-3/5/7), review and determine opportunities for adjustments to their planning element processes, where appropriate, so that the Army can better complete the planning elements by the time it fields new equipment. (Recommendation 2)

The Secretary of the Army should ensure that process managers, in coordination with Headquarters, Office of the Deputy Chief of Staff for Operations, Plans, and Training (G-3/5/7), document, where appropriate, any planning element process adjustments determined necessary to better complete the planning elements by the time the Army fields new equipment. (Recommendation 3)

Agency Comments

We provided a draft of this report for review and comment to DOD. In written comments on a draft of this report, the Army concurred with our recommendations.

The Army's comments are reprinted in their entirety in appendix II.

We are sending copies of this report to the appropriate congressional committees, Secretary of Defense; the Secretary of the Army; and the Chief of Staff of the Army, and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact Diana Maurer at (202) 512-9627 or MaurerD@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.

A handwritten signature in black ink that reads "Diana Maurer". The signature is written in a cursive, flowing style.

Diana Maurer
Director
Defense Capabilities and Management

Appendix I: Objectives, Scope, and Methodology

In this report, we describe the Army's (1) investments in modernization and examine the extent to which the Army (2) made progress in implementing the Regionally Aligned Readiness and Modernization Model (ReARMM) and (3) supported planning for new equipment to be fielded through ReARMM. To address these objectives, our review focused on the Army's efforts under ReARMM to prepare modernized combat forces across the total Army.¹

To address our first objective, we reviewed the 2021 Army Modernization Strategy to identify the priority efforts.² We also reviewed 4 years of Army budget justification materials to describe the six modernization priorities and identify specific efforts associated with those priorities. We also totaled their associated investment amounts. Specifically, we reviewed the Procurement and Research, Development, Testing, and Evaluation budget justification materials for fiscal years 2021 through 2024. We also reviewed documentation as of November 2023 on first-unit equipped dates to identify new equipment associated with the modernization priorities that the Army had fielded to units or was estimated to be fielded to the first designated unit by the end of fiscal year 2025.

To address our second objective, we analyzed the Army's efforts to assign units to geographic combatant commands and adjust unit calendars to ReARMM phases and lengths. We also reviewed its efforts to update force generation guidance. We obtained and analyzed data from the Army's system of record for unit calendars (i.e., the Army Synchronization Tool) including data on: (1) the assignment of ReARMM phases to units; (2) the equipment fielded to units; and (3) the length of unit modernization phases under ReARMM. We assessed the reliability of this data by reviewing system documentation, conducting analysis and manual checks of the data, and reviewing a cognizant official's responses to a questionnaire on the system's data. We determined the data was sufficiently reliable for reporting on unit calendars and ReARMM schedules.

We reviewed Army data and documents and interviewed officials to identify modernization priority units; their regional alignments; and the upgraded, new, and priority modernized equipment distributed to units from October 2020 through June 2023. We also reviewed documents and interviewed officials about unit-to-unit transfers of equipment sets under

¹The total Army consists of the active Army, Army Reserve, and Army National Guard.

²U.S. Army, *Army Modernization Strategy: Investing in the Future* (2021).

ReARMM. We reviewed Army guidance to identify relevant policy on equipment maintenance and transfer, inventory management, and ReARMM. We evaluated the Army's equipment set transfers under ReARMM against Army guidance and Standards for Internal Control in the Federal Government.³

To address our third objective, we reviewed Army documents to identify when the first unit was equipped with new priority equipment and to assess the status of Army efforts to address the planning elements for each new equipment item. Specifically, for the modernization efforts identified in the 2021 Army Modernization Strategy, we identified the items that had been fielded since fiscal year 2021 and those planned to be fielded in fiscal year 2024. We reviewed ReARMM working group and Army conference documents to understand the challenges and actions taken by the Army to address planning elements. We interviewed Army officials to further our understanding of the planning element and acquisition processes. We analyzed documents from the Army Future Readiness Conference about the status of decisions needed for new equipment. Lastly, we conducted a site visit to the Maneuver Center of Excellence to deepen our understanding of the Army's process to integrate required changes to support fielding new equipment. We assessed the Army's efforts against Army guidance on capability development and modernization processes. We also compared the Army's guidance and documents against Standards for Internal Control in the Federal Government to identify any weaknesses.⁴

We also interviewed cognizant Army officials from the following organizations:

- Assistant Secretary of the Army (Acquisition, Logistics, and Technology)
- Assistant Secretary of the Army (Manpower and Reserve Affairs)
- Center for Army Analysis
- Headquarters, Department of the Army G-1, Personnel
- Headquarters, Department of the Army G-3/5/7, G-3 Training

³GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

⁴[GAO-14-704G](#).

- Headquarters, Department of the Army G-3/5/7, Force Management
- Headquarters, Department of the Army G-8, Programs
- Army Forces Command
- Army Futures Command
- Army Materiel Command
 - Army Sustainment Command
- Army National Guard Bureau
- Army Reserve Command
- Army Training and Doctrine Command
 - Maneuver Center of Excellence
 - Fires Center of Excellence

The performance audit upon which this report is based was conducted from September 2022 to April 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We worked with DOD from May 2024 to July 2024 to prepare this unclassified version of the original CUI report for public release. This public version was also prepared in accordance with these standards.

Appendix II: Comments from the Department of Defense



SECRETARY OF THE ARMY
WASHINGTON
22 MAR 2024

Ms. Diana Maurer
Director, Acquisition and Sourcing Management
U.S. Government Accountability Office
441 G Street, NW
Washington DC 20548

Dear Ms. Maurer,

This is the Department of Defense response to the Government Accountability Office (GAO) Draft Report, GAO-24-106274SU, ARMY MODERNIZATION: Actions Needed to Support Fielding New Equipment" dated January 16, 2024 (GAO Code 106274).

Attached is Army's response to the subject report. My point of contact is LTC Courtney Justice who can be reached at [REDACTED] and phone [REDACTED]

Sincerely,

A handwritten signature in black ink, appearing to read "Christine E. Wormuth", is written over the typed name.

Christine E. Wormuth

Enclosure



**GAO DRAFT REPORT DATED JANUARY 16, 2024
GAO-24-106274SU (GAO CODE 106274)**

**ARMY MODERNIZATION: ACTIONS NEEDED TO SUPPORT FIELDING NEW
EQUIPMENT**

**DEPARTMENT OF THE ARMY COMMENTS
TO THE GAO RECOMMENDATIONS**

GAO RECOMMENDATION 1: The GAO recommends that the Secretary of Defense implement corrective actions to ensure equipment meets condition standards before transfer.

ARMY RESPONSE: The Army concurs with the report's finding. The Army possesses and enforces equipment standards in accordance with Army Regulation (AR) 770-2, *Materiel Fielding for equipment displacements*, and AR 750-1, *Army Materiel Maintenance Policy*, and AR 710-1, *Centralized Inventory Management of the Army Supply System for equipment transfer standards*. Additionally, Department of the Army Pamphlet 750-1 provides regulatory guidance for materiel developers and gaining/losing units. Army G-3/5/7 also fulfills both GAO 20-21 and AR 770-2 responsibilities for guidance through Execute Orders (EXORD) and documents aligned with Command Plans. As Regional Alignment Readiness and Modernization Model (ReARMM) transitioned from Initial Operating Capability (IOC) to Full Operating Capability (FOC) in 1st Quarter Fiscal Year (FY) 24, the Army conducted after-action reviews following each equipment cascade event. The lessons learned from each event indicated a lack of enforcement of regulation rather than regulatory deficit. Adjustments were made as outlined in EXORDs for each subsequent equipment transfer. For example, these early lessons learned allowed the Army to make improvements for Stryker cascade efforts from the 28th Infantry Division (ID) and 7ID as well as with the M2 Bradley cascade from 1st Cavalry Division and 34ID. Additionally, based on unit feedback regarding constrained modernization timelines, the Army revised the ReARMM EXORD and AR 525-29, *Army Force Generation*, directing phase length adjustments to ensure units had adequate time and resources to conduct maintenance to standard. Lastly, following the initial cascade efforts, the DCS, G-3/5/7 directed future cross component transitions to include depot level maintenance at either an Army Material Command facility or at the transfer location, which in turn helped to identify maintenance faults and necessary repairs if required prior to the equipment transfers. Acknowledging the previous shortfalls in maintenance, the Army will enforce and improve regulatory guidance where

necessary to ensure equipment maintenance standards are met, and adequate resources are in place to facilitate transfers of Fully Mission Capable equipment between Units and Army Components.

GAO RECOMMENDATION 2: Determine and adjust processes to better complete planning elements before fielding.

ARMY RESPONSE: The Army concurs with the report's finding. The GAO highlights some of the key inputs to the ReARMM governance conferences, as well as the challenges the Army must work through to synchronize modernization. Specifically, the Army implemented the weekly G-3 ReARMM Working Group in March 2023 to address Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities- Policy (DOTMLPF-P) synchronization and readiness requirement at the enterprise level, which is an important tool that informs adjustments to Army unit activations, or effective dates, as documented by the Units' Modified Table of Equipment (MTOE). This G-3 ReARMM Working Group additionally serves to synchronize DOTMLPF-P planning elements while providing oversight on topics brought through the Army's four bi-annual conferences; the Army Synchronization Resourcing Conference (ASRC), Army People Synchronization Conference (APSC), Army Modernization Equipping Conference (AMEC), and Army Future Readiness Conference (AFRC). Lastly, due to the criticality of synchronizing modernization activities, the Army codified this oversight responsibility in both the ReARMM EXORD and Army Regulation 525-29. The timing of GAO's analysis occurred as a parallel effort with the early implementation and maturation of ReARMM from first implementation with IOC to the codification of the process in Army Regulation (525-29) and in the FY 2024 ReARMM EXORD, to Full Operating Capability (FOC). The annual ReARMM EXORD enables the Army to provide refined direction to ensure that the essential planning elements, DOTMLPF-P, are identified earlier in the process to support development and delivery of each element at the point of need along with the fielding of equipment. As GAO highlights, there could be readiness implications of improper synchronization of DOTMLPF-P planning elements. The Army, in part, through the ReARMM governance process, is better positioned to evaluate the threat and risk across DOTMLPF-P considerations to recommend and make decisions to align key Army processes. To further demonstrate how the Army has adjusted processes, during this GAO report assessment timeframe, the Army conducted the first ever Army Future Readiness Conference (AFRC) to forecast DOTMLPF-P planning elements earlier in the process to address future modernization concerns. While the Army has made great progress on shortening the material development timeline to accelerate modernization, some of the other elements of DOTMLPF-P have not similarly been accelerated. Recognizing this shortfall, the Army has initiated several processes at the proponent, Army Service Component Command, and HQDA level to synchronize the

other elements with the materiel being issued or fielded to the Force. These include a Modernization Common Operating Picture to track all the elements and synchronize them in time, the AFRC and APSC (in addition to the already well established ASRC and AMEC conferences) that identifies the decisions required and the timing of those decisions to deliver full DOTMLPF-P solutions, with initial training plans, basis of issue plans, and programs of instruction needed to ensure the readiness of the capability being issued or fielded to the Army. The Army will review planning element requirements, assess priorities among them and incorporate assessments of timelines for new capabilities and formations when assessing risk.

The Army acknowledges that many new equipment fieldings have occurred without completing all planning elements. The Army releases new equipment under multiple pathways in accordance with AR 770-3, *Type Classification and Material Release Procedures*. Several of these pathways, such as Conditional or Urgent Materiel Release, allow for fieldings to be conducted without some elements in place, but provide a "get-well" plan to achieve these elements later. With concurrence from all stakeholders, this provides the Army flexibility to make decisions to better balance risks and provide more modernization and greater capabilities to units earlier. We will continue to adjust and optimize our processes, especially for our prototype and emerging systems in this dynamic environment to ensure our products support strategies that align with production and delivery schedules.

We would like to note that with advancements in the Middle Tier Acquisition (MTA) pathway, the Army is also issuing (not fielding) some prototypes to the field as a part of operational testing, promoting rapid prototyping. These prototypes are not covered under AR 770-2, because they are not being fielded, but rather issued for the purposes of product improvement and technology maturation. In many cases, the traditional support elements expected for a material fielding are forecasted but not complete as requirements are still being refined. Rapid Prototyping MTAs, for example, require only those planning elements necessary to properly test, store and issue the prototypes. The M-SHORAD and IFPC were both systems procured under the MTA pathway. In a limited number of cases, some low density, high-cost prototypes may be retained by Army units due to their strategic value and the enhanced capabilities they provide. The Army acknowledges that it needs to work with and have buy-in from the proponents for each of the planning factors to better synchronize and accelerate current processes.

The Army concurs with the GAO assessment regarding shortfalls with facilities and long time horizons for completion. As such, the Army develops contingency plans to meet threshold readiness requirements, as in the example for improved ranges to for the Mobile Protective Firepower vehicle. The interim strategy to build and maintain

readiness is to identify alternate geographic locations for specific training. This not being ideal in the long term, as it takes additional time and resources to accomplish.

GAO RECOMMENDATION 3: Document those process adjustments.

ARMY RESPONSE: The Army concurs with the report's finding. The Army is working to codify the process in Army Regulation (525-29) and in the Fiscal Year 2024 ReARMM EXORD. Process improvements, as they occur, will be captured in annual updates to the ReARMM EXORD, or if necessary, a Fragmentary Order, or other-directed action specific EXORD. Several of the Army initiatives (Specialized System Training Program, Basis of Issue Plan, and full DOTMLPF-P costs) have already been documented in AR 71-9, *Warfighting Capabilities Determination*, as well as incorporated into the Army's Battle Rhythm (AFRC, APSC, AMEC, and ASRC). [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] The Army will continue this annual process to mitigate the risk of delayed deliveries of critical capabilities.

GAO DISCUSSION ON MSHORAD AND IFPC

ARMY RESPONSE: The Air Defense branch is modernizing the way it fights across multiple planning elements, including new materiel and doctrine. The planning elements referenced should be viewed as a running estimate to inform leaders of current activities within a specific program and if there is need for senior leader involvement. They are not to be viewed as a checklist with "go / no-go" criteria to fielding. They are used to inform decisions about risk to force and risk to mission through a wholistic view of where the Army is and where the Army is going.

To accurately develop training programs and qualification requirements, the materiel solution must be realized. As vendors design and iterate with Army Futures Command (AFC) throughout the development process, proponents within Training and Doctrine Command (TRADOC) participate with AFC to draft assumptions for doctrine, organization, manning, leader development, and training. Once the prototypes are delivered to the first unit, the operational force provides input back to TRADOC to validate the draft products or to correct false assumptions.

The Maneuver Short Range Air Defense (MSHORAD) capability was a directed requirement from the Vice Chief of Staff of the Army, to fulfill a critical Air Defense capability gap. MSHORAD was the first prototype capability to navigate the rapid acquisition model. It also marked the beginning of a transformation within the Air

Defense branch with impacts across several modernization efforts, all of which are interdependent. The first doctrinal adjustment to FM 3-01.44, *Short Range Air Defense Operations* was made shortly after the first MSHORAD battalion was fielded. This first unit equipped provided valuable feedback to the draft gunnery qualification tables, that the Air Defense Artillery (ADA) Commandant subsequently and recently approved. As of the date of this memo, both the gunnery qualification tables and methodology for MSHORAD have been shared across the force to facilitate training.

The Indirect Fire Protection Capability (IFPC) referenced in line 350-356 of the report is the Iron Dome Defense System – Army (IDDS-A), which has been referred to as IFPC Increment 1. [REDACTED]

[REDACTED]. During the prototype testing, much of the aspects of DOTMLPF-P will be identified and resolved, including how to fight the system, the true capabilities and limitations, the manning and organizational requirements, and qualification methodology. The IFPC system pictured on line 357 is the vendor's artistic rendering of IFPC Increment.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

Diana Maurer at (202) 512-9627 or MaurerD@gao.gov

Staff Acknowledgments

In addition to the contact named above, Kevin O'Neill (Assistant Director), Susan Langley (Analyst in Charge), Chad Hinsch, J. Kristopher Keener, Amie Lesser, Lauren Lochocki, Michael Silver, Carter Stevens, Erik Wilkins-McKee, Tiayé Wooten, and Lillian Moyano Yob made key contributions to this report.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through our website. Each weekday afternoon, GAO posts on its [website](#) newly released reports, testimony, and correspondence. You can also [subscribe](#) to GAO's email updates to receive notification of newly posted products.

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, <https://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on [Facebook](#), [Flickr](#), [Twitter](#), and [YouTube](#).
Subscribe to our [RSS Feeds](#) or [Email Updates](#). Listen to our [Podcasts](#).
Visit GAO on the web at <https://www.gao.gov>.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact FraudNet:

Website: <https://www.gao.gov/about/what-gao-does/fraudnet>

Automated answering system: (800) 424-5454 or (202) 512-7700

Congressional Relations

A. Nicole Clowers, Managing Director, ClowersA@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

Public Affairs

Sarah Kaczmarek, Acting Managing Director, KaczmarekS@gao.gov, (202) 512-4800, U.S. Government Accountability Office, 441 G Street NW, Room 7149 Washington, DC 20548

Strategic Planning and External Liaison

Stephen J. Sanford, Managing Director, spel@gao.gov, (202) 512-4707
U.S. Government Accountability Office, 441 G Street NW, Room 7814, Washington, DC 20548