



Future Vertical Lift: Senior Leaders Restructured the Army Aviation Portfolio to Reduce Costs

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Report to Congressional Committees

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Why This Matters

To achieve its goals, the Army must perform reconnaissance and attack missions and move troops and equipment to and throughout the battlefield. To do so, the Army primarily uses helicopters, which it refers to as rotary wing or vertical lift systems. The Army has been developing a portfolio of vertical lift systems to reflect its shift in focus from counterinsurgency to deterring or confronting major powers, such as China and Russia. In February 2024, the Army made significant changes to its Future Vertical Lift portfolio that affected its plans for acquisitions and its projected budget.

Senate Report 118-188 accompanying S.4638, a bill on the National Defense Authorization Act for Fiscal Year 2025, contained a provision for us to review the rationale and effect of the Army's restructuring decisions and the analyses that informed them. Our report describes the revisions resulting from the restructuring, the reasons for the changes, how the changes affected programs and vertical lift capabilities, and Army plans to address potential capability gaps.

Key Takeaways

- Army officials stated that in February 2024, a small group of senior Army leaders, including the Secretary and Chief of Staff, together with officials from the Office of the Secretary of Defense (OSD), restructured the Future Vertical Lift portfolio primarily due to long-term affordability concerns.
- As a result of the restructuring, the Army ended or delayed development of three acquisition programs, shifting about \$7 billion in planned spending to other requirements. These requirements included other programs with vertical lift capabilities as well as improvements to Army barracks.
- Because of its decision to end development of one program, the Army may have less capability than planned for crewed reconnaissance and attack missions. To address this, the Army plans to rely on uncrewed systems for some reconnaissance and attack missions and existing helicopters for attack.
- The Army is currently considering further changes to its aviation portfolio.

How did the Army define its Future Vertical Lift portfolio prior to February 2024?

When the Army designated Future Vertical Lift as a priority in its 2019 Modernization Strategy, it defined the portfolio as three new types of aircraft and associated subsystems, as well as the adoption of a modular open systems approach for systems development. The Army intended for these systems to

enhance its aircraft capabilities and replace or supplement portions of the existing fleet.

Army officials stated that they wanted to develop new systems that took advantage of improvements in technology to provide enhanced speed, range, lift, and maneuverability, and modern controls. The portfolio was expected to include crewed and uncrewed platforms capable of attack, reconnaissance, and transport missions on current and future battlefields. The Army also intended to develop each of these systems with a modular open systems approach to enable incremental development and enhance competition, innovation, and interoperability.¹

The Army's Future Vertical Lift portfolio included two crewed and one uncrewed aircraft:

- Future Attack Reconnaissance Aircraft (FARA),
- Future Long Range Assault Aircraft (FLRAA), and
- Future Tactical Unmanned Aircraft System (FTUAS).

The Army intended for FARA to provide reconnaissance, attack, and aerial security capabilities with increased performance, lethality, range, and sustainability over the AH-64 Apache. The Army's past and projected funding needs for FARA were about \$5.3 billion for development and procurement from fiscal years 2022 through 2028, according to the President's budget submission for fiscal year 2024.² As we previously reported, the Army spent approximately \$2.6 billion on FARA development, including the production of two prototypes.³

The Army designed FLRAA as a medium-sized assault and utility aircraft that would deliver speed, range, endurance, and sustainability improvements compared to current Black Hawk helicopters. The Army's past and projected funding needs for FLRAA were about \$6.6 billion for development and procurement from fiscal years 2022 through 2028, according to the President's budget submission for fiscal year 2024. As we previously reported, the Army estimates that FLRAA will cost a total of approximately \$100 billion in development and procurement funds.⁴

The Army intended FTUAS to execute reconnaissance operations as a rapidly deployable uncrewed aircraft with vertical take-off and landing capabilities. The Army initiated the second increment of this capability as a rapid prototyping effort on the Department of Defense's middle tier of acquisition pathway.⁵ The Army's past and projected funding needs for FTUAS were \$125 million for development from fiscal years 2022 through 2025. The Army also estimated that procurement costs would total almost \$587 million, according to the President's budget submission for fiscal year 2024. Figure 1 depicts these aircraft.

Figure 1: Aircraft in the Future Vertical Lift Portfolio prior to February 2024



Top Row: Future Attack Reconnaissance Aircraft prototypes. Bottom Left: Future Long Range Assault Aircraft technology demonstrator. Bottom Right: Future Tactical Unmanned Aircraft System prototypes.

Sources: (top, left to right): 2022 Sikorsky, a Lockheed Martin Company.; Bell Textron.; (bottom, left to right) Bell Textron, Inc.; U.S. Army/D. Hylton. | GAO-26-108025

In addition to the three aircraft, the Army sought related capabilities including an improved turbine engine and launched effects, a group of uncrewed systems with a variety of missions.⁶

- The Army intended to deliver FARA with the improved turbine engine. It developed the engine to fit inside the existing engine compartments of the Black Hawk and Apache helicopters and expects it to provide improved power, fuel efficiency, reliability, and maintainability.
- The Army is developing launched effects to be multi-mission, uncrewed aircraft capable of being launched from larger Army aircraft or the ground. They are intended to extend the operational reach of Army aircraft by penetrating enemy air defenses to provide lethality, along with capabilities to detect, identify, disrupt, act as decoys, and report in different environments. The Army is considering a variety of missions for these effects including reconnaissance and electronic warfare.⁷

Figure 2 shows these capabilities.

Figure 2: Improved Turbine Engine and Air Launched Effects



Sources: (left to right): U.S. Army/D. Hylton; U.S. Army/P. Enright. | GAO-26-108025

What changes did the Army make to the Future Vertical Lift portfolio in February 2024?

In February 2024, the Army announced it was restructuring the Future Vertical Lift portfolio by:

- ending the development of FARA,
- continuing investment in FLRAA,
- increasing investments in FTUAS and launched effects, and
- delaying the production of the improved turbine engine.

Who made these changes?

According to Army officials, Army leadership collaborated with OSD officials to make the changes. The decision was closely held during the budget formulation process and was included in the President's fiscal year 2025 budget request.

According to Army acquisition officials, the reduction in funding was included in the formal documentation associated with the OSD budget review process, and the decision was communicated by the Office of the Under Secretary of Defense (Comptroller) directly to the Office of Management and Budget for inclusion in the President's fiscal year 2025 budget request. OSD officials stated that the decision-making process was not atypical. After the restructuring was announced and included in the fiscal year 2025 budget request, Army leadership testified before Congress to discuss the decisions.

The FARA effort ended in fiscal year 2025. Congress did not take any action to authorize or appropriate further funding for it. The Army subsequently implemented the restructuring by initiating closeout of the relevant contracts and stopping work to integrate FARA with the improved turbine engine.

Why did the Army make these changes?

Army budget officials stated that these changes were due to concerns about the long-term affordability of developing and acquiring FARA and FLRAA simultaneously. According to these officials, procuring them simultaneously would have consumed nearly the entire Army aviation budget. In addition, doing so would have extended the period needed to field these systems, delaying modernization of the fleet and increasing maintenance costs for existing aircraft.

While officials stated that affordability was the primary reason for the changes, they also considered the capabilities that FARA was intended to provide. Army leadership stated that when reviewing analyses of alternatives, the Army determined that FARA provided only marginally better reconnaissance and surveillance capabilities than other capabilities under development at the time, but at a much higher cost. In addition, documentation showed FARA could face challenges in completing its intended missions. Research also demonstrated the potential for uncrewed systems to perform parts of FARA's mission based on the use of such systems in Ukraine.

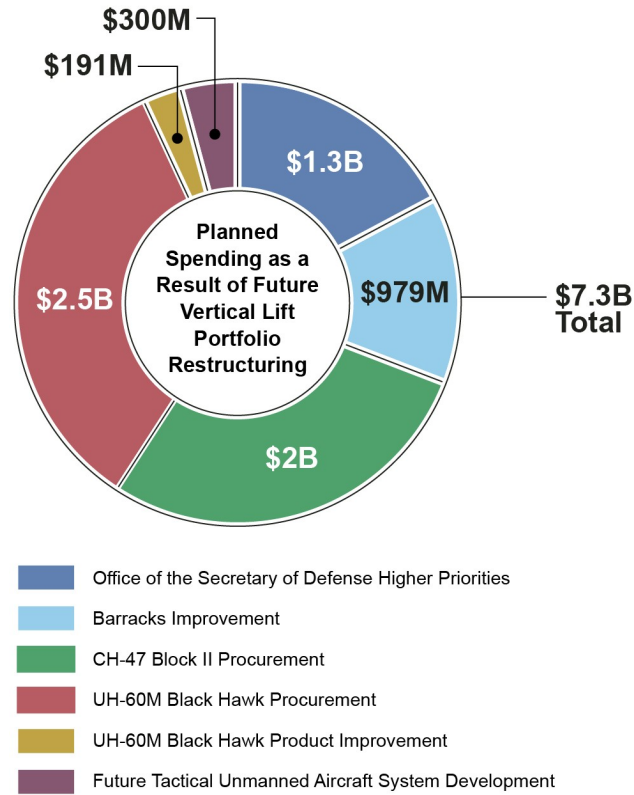
How did these changes affect the Army's budget?

The Army made significant changes to its fiscal year 2025 budget request because of the restructuring decision. According to Army officials, the restructuring decision allowed them to shift about \$7.3 billion from fiscal years 2025 through 2029 in their budget plans, including:

- \$4.4 billion from ending development of FARA,
- \$2.2 billion from delaying development of the improved turbine engine, and
- about \$690 million from canceling the UH-60V helicopter upgrade effort.

Figure 3 shows how funds made available from the restructuring were shifted to other requirements.

Figure 3: Planned Spending from Fiscal Years 2025 through 2029 as a Result of Future Vertical Lift Portfolio Restructuring



Sources: GAO analysis of Department of Defense data and testimony. | GAO-26-108025

- Office of the Secretary of Defense Higher Priorities: 1.3 billion dollars
- Barracks Improvement: 979 million dollars
- CH-47 Block II Procurement: 2 billion dollars
- UH-60M Black Hawk Procurement: 2.5 billion dollars
- UH-60M Black Hawk Product Improvement: 191 million dollars
- Future Tactical Unmanned Aircraft System Development: 300 million dollars

Sources: GAO analysis of Department of Defense data and testimony. | GAO-26-108025

According to an official in the Army's resourcing office, the Army shifted the \$7.3 billion in planned spending to multiple efforts, including:

- \$299.5 million in future development funding to FTUAS,
- \$2.47 billion from fiscal years 2027 through 2029 to procure new Black Hawks and \$191 million in development funding for improvements to this aircraft from fiscal years 2025 through 2029,
- \$2 billion for procurement of additional CH-47 Block II cargo helicopters,
- a small amount of maintenance funding for the AH-64 Apache,
- \$1 billion to its barracks improvement program, which is a key concern of members of Congress and the Department of Defense, and
- \$1.3 billion to OSD for higher-level priorities.

How did these changes affect the Army's vertical lift capabilities?

The changes reduced some of the Army's future capabilities, delayed the development of others, and resulted in the procurement of additional existing systems. Specifically:

- Ending FARA's development reduced the Army's planned capability for crewed reconnaissance and attack. It also delayed the introduction of air-launched effects to the fleet, as the Army had planned to initially use this capability on FARA.
- Delaying the improved turbine engine program also delayed desired speed, range, agility, endurance and sustainability improvements for the UH-60 Black Hawk and AH-64 Apache. In 2025, we reported that production of the new engine, previously planned for the third quarter of fiscal year 2026, was delayed until the third quarter of fiscal year 2029.⁸ According to program officials, the reduction in funding following the restructuring also resulted in changes to the acquisition approach. The program office had planned to complete integration and testing of the new engine on both the Black Hawk and Apache simultaneously. The program office now plans to complete integration, testing, and qualification of the new engine with the Black Hawk before starting production and will complete the same steps with the Apache after production start.
- Army officials told us that they also procured additional new Black Hawk helicopters and canceled an existing effort at Army depots to upgrade existing Black Hawks. According to these officials, this resulted in decreased costs as the upgrade program had become more expensive than anticipated. They stated that procuring additional Black Hawks could lower operations and maintenance costs as new helicopters are less expensive to maintain

than upgrades of older aircraft. Army officials also stated that the new Black Hawks could also potentially add enhanced reconnaissance capabilities.

- Increasing funding for the CH-47 Block II program committed the Army to continue upgrading this heavy lift aircraft to provide additional capability, range, and payload capacity. The Army also expects the CH-47 Block II improvements to reduce operating and support costs.

How did the Army intend to address the changes in capabilities of the February 2024 restructuring?

The Army planned to rely on uncrewed aircraft to address the changes in capabilities resulting from the restructuring. Army leadership stated that the conflict in Ukraine fundamentally changed aerial reconnaissance and demonstrated that uncrewed systems with sensors and weapons can provide further reach at lower cost and risk than crewed systems such as FARA. To address potentially reduced aerial reconnaissance and attack capabilities, the Army planned to use FTUAS and launched effects, which include such capabilities as reconnaissance and electronic warfare.

The Army also revised the requirements of the launched effects effort to prioritize ground-launched effects instead of air-launched effects from FARA. According to Army officials, the change to ground launch will accelerate the introduction of the capability. Additionally, Army officials told us that future development for air-launched effects will focus on the UH-60 Black Hawk and potentially other aviation platforms. Army officials also stated that possible new reconnaissance capabilities for the Black Hawk could help address these changes.

Has the Army announced any additional changes to the portfolio since February 2024?

In April 2025, the Secretary of Defense announced the Army Transformation Initiative. This initiative directs the Army to consider changes to both its acquisitions and force structure. As a result, the Army proposed a number of other changes to its aviation portfolio, including:

Accelerating FLRAA development and fielding. Army leadership told us that they want to accelerate the development of FLRAA. According to the acquisition strategy approved in June 2024, the Army planned to equip the first unit with the aircraft in fiscal year 2031. It is investigating options to determine how much earlier it can deliver the capability. Program officials stated that, tentatively, they could equip the first unit in 2030.

Accelerating fielding of launched effects. In April 2025, the Secretary of Defense called for accelerating the fielding of ground- and air-launched effects capabilities to every Army division by the end of 2026. This is about 4 years earlier than the originally planned fielding date. Army officials stated that they plan to field the first air-launched effects in July 2026.

Distributing existing vertical lift capabilities across the Army. Army leadership stated that they plan to restructure the formations that operate AH-64E helicopters across the entire force. The Army will remove the AH-64E from its air cavalry squadrons to place them into other formations in an attack role. The air cavalry squadrons will now rely on uncrewed aerial systems to perform deep reconnaissance missions.

Ending development of FTUAS. In June 2025, the Army announced it was ending the competition for the second iteration of FTUAS, among other actions. Army leadership stated that the requirement for a system to provide deep

reconnaissance with electronic warfare and attack capabilities remains valid, but that there was a better solution than FTUAS. Officials said that the commercial sector is moving faster in developing uncrewed aerial systems than the traditional defense industrial base and buying commercial systems provides flexibility to procure systems with a greater variety of capabilities. The Army plans for the commercial systems to perform missions similar to FTUAS.

In our discussions with Army officials, they stated that none of these decisions have been finalized and will depend on the outcome of the fiscal year 2026 budget deliberations.

Agency Comments

We provided a draft of this report to the Department of Defense for comment. The Department did not provide a formal response, but provided technical comments, which we incorporated as appropriate.

How GAO Did This Study

To identify why the Army decided to restructure the Future Vertical Lift portfolio, which officials made the decision, how they made the decision, and how they intended to address any capability gaps resulting from the decision, we interviewed Army leadership including the Vice Chief of Staff of the Army, and officials from:

- the office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology,
- the Army Deputy Chief of Staff for Programs, which is the office responsible for aligning funding to the Army's acquisition plans, and
- the Future Vertical Lift Cross-Functional Team.

We also interviewed officials from the office of the Under Secretary of Defense for Acquisition and Sustainment.

To assess the extent to which programs provided insight and analysis into the restructuring decision, we interviewed officials from relevant program offices, including:

- Launched Effects,
- Future Long Range Assault Aircraft,
- Future Tactical Unmanned Aerial System,
- Improved Turbine Engine Program, and
- UH-60 Black Hawk.

To determine how the restructuring decision affected vertical lift capabilities, we compared relevant requirements documents from before February 2024, to requirements documents updated after the restructuring decisions for programs that had these documents. This comparison allowed us to identify changes in how the Army planned to use these systems after the restructuring decision. We supplemented this review with interviews with the relevant program offices to confirm we identified relevant changes.

To identify how the changes would be reflected in projected budgets, we traced the funding the Army shifted to its other programs and priorities through the Army's fiscal year 2025 budget justification books. When we identified potential

discrepancies or were unable to trace the funding, we interviewed Army officials to confirm we reported accurate data.

We conducted this performance audit from January 2025 to March 2026 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.

List of Addressees

The Honorable Roger Wicker
Chairman
The Honorable Jack Reed
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Mitch McConnell
Chair
The Honorable Chris Coons
Ranking Member
Subcommittee on Defense
Committee on Appropriations
United States Senate

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

The Honorable Ken Calvert
Chairman
The Honorable Betty McCollum
Ranking Member
Subcommittee on Defense
Committee on Appropriations
House of Representatives

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

GAO Contact Information

For more information, contact: Alex Winograd, Acting Director, Contracting and National Security Acquisitions, winograda@gao.gov.

Media Relations: Sarah Kaczmarek, Managing Director, Media@gao.gov.

Congressional Relations: Dave Powner, Managing Director, CongRel@gao.gov.

Staff Acknowledgments: Mona Sehgal (Director), J. Kristopher Keener (Assistant Director), Cale Jones (Analyst in Charge), Peter Anderson, Lorraine

Ettaro, Austin Li, Kevin O’Neill, John Rastler-Cross, Sylvia Schatz, Wesley Wilhelm, and Adam Wolfe.

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Endnotes

¹ In the National Defense Authorization Act (NDAA) for Fiscal Year 2017, Congress mandated that all major defense acquisition programs (MDAP) entering technology development or system development—milestones A or B, respectively—after January 1, 2019 implement Modular Open Systems Approach (MOSA) to the maximum extent practicable. The William M. (Mac) Thornberry NDAA for Fiscal Year 2021 expanded this requirement mandating that all other acquisition programs also implement MOSA to the maximum extent practicable. For the current statutory definition of a MOSA, see 10 U.S.C. § 4401(b)(1).

² Unless otherwise noted, costs are in then-year dollars.

³ Fiscal year 2024 dollars. GAO, *Weapon Systems Annual Assessment: DOD Is Not Yet Well-Positioned to Field Systems with Speed*, [GAO-24-106831](#) (Washington, D.C.: July 18, 2024).

⁴ Fiscal year 2025 dollars. *Weapon Systems Annual Assessment: DOD Leaders Should Ensure That Newer Programs Are Structured for Speed and Innovation*, [GAO-25-107569](#) (Washington, D.C.: June 11, 2025).

⁵ The Middle Tier of Acquisition pathway is intended for capabilities that have a level of maturity to allow them to be rapidly prototyped within an acquisition program or fielded within five years of the Middle Tier of Acquisition pathway program start. The rapid prototyping path provides for the use of innovative technologies to rapidly develop fieldable prototypes to demonstrate new capabilities and meet emerging military needs. Department of Defense Instruction 5000.80, *Operation of the Middle Tier of Acquisition*, (Dec. 30, 2019) (incorporating change 1, Nov. 25, 2024).

⁶ The efforts in the portfolio are described in more detail in our previous report on the Army's Future Vertical Lift aircraft. See GAO, *Future Vertical Lift Aircraft: Army Should Implement Leading Practices to Mitigate Acquisition Risk*, [GAO-23-105554](#) (Washington, D.C.: April 17, 2023). FARA, FLRAA, and the Improved Turbine Engine Program are also assessed in GAO's annual assessments of DOD's major weapon systems. For FLRAA and the engine, see [GAO-25-107569](#). For FARA, see [GAO-24-106831](#).

⁷ Electronic warfare refers to actions to control the electromagnetic spectrum by exploiting, deceiving, or denying enemy use of the spectrum while ensuring its use by friendly forces.

⁸ [GAO-25-107569](#).