

FARA Falls

Sobered by drone wars, the US Army cancels its Future Attack Reconnaissance Aircraft to pay for its new tiltrotor, re-modernize utility and cargo helicopters, and go all-in on uncrewed aircraft.

By Frank Colucci

On Feb. 8, 2024, the US Army announced its decision to discontinue development of the Future Attack Reconnaissance Aircraft (FARA) in favor of an “aviation investment rebalance.” The action outlined in the official press release ends spending on the advanced scout-attack helicopter this year with flight tests of the Bell and Sikorsky competitive prototypes. It delays production of the General Electric T901 improved turbine engine (ITE) shared by FARA and the Army’s Apache attack and Black Hawk utility helicopters. The “transformational rebalance” also cancels the UH-60V digitization of analog Black Hawks. Secretary of the Army Christine Wormuth nevertheless declared, “The Army is deeply committed to our aviation portfolio and to our partners in the aviation industrial base.”

Expected savings from the FARA cancellation are supposed to fund development of the Future Long Range Assault Aircraft (FLRAA) Bell V-280 Valor tiltrotor, buy more improved Black Hawks and finance a second round of modernization for Chinook cargo helicopters. Central to the Army’s fourth armed scout helicopter



Bell's vision for its operational V-280 Valor for FLRAA and 360 Invictus for FARA.



Sikorsky's vision for its operational Raider X for FARA.

cancellation are extra investments in uncrewed aircraft systems (UAS) and air- or ground-launched effects (LE) that will perform reconnaissance for the Joint Force in multi-domain operations.

FARA with air-launched effects promised the Army a fast, agile, armed reconnaissance helicopter able to stand off from integrated air defense systems (IADS) or fight close-in in tight urban

canyons (see “Defiant, Valor and the Knife Fighter,” *Vertiflite*, March/April 2021). With its cancellation, Army chief of staff Gen. Randy George said, “We are learning from the battlefield — especially in Ukraine — that aerial reconnaissance has fundamentally changed... I am confident the Army can deliver for the Joint Force, both in the priority theater and around the globe, by accelerating innovation, procurement and fielding of modern

unmanned aircraft systems, including the Future Tactical Unmanned Aircraft System [FTUAS], Launched Effects, and commercial small unmanned aircraft systems.”

The Asia-Pacific theater now prioritized by the US Department of Defense is characterized by long flights over water — scenarios answered by the Army’s choice of the Bell V-280 for FLRAA (see “FLRAA Tilts to Bell,” *Vertiflite*, Jan/Feb 2023). However, current fights in Ukraine and Gaza still fit helicopters. Ukraine has indeed scored dramatic kills with one-way attack drones but has lobbied to receive heavy-attack Apache helicopters. Russia has suffered ugly losses of Ka-52s, Mi-24s and other helicopters to man-portable air defense systems. These lessons-learned supposedly led the US Army to end development of its crewed scout helicopter and emphasize uncrewed aerial reconnaissance, but Russian forces have been widely criticized for their poor tactics and training vs. how US forces would use its rotary-wing aviation assets.

The aviation rebalance consequently trades FARA money for UAS reconnaissance platforms, including those possibly launched from FLRAA and Black Hawks. Last September, the Army awarded FTUAS rapid prototyping agreement options to Griffon Aerospace and Textron Systems. The options lead to critical design reviews that will establish the production baseline for a ground-launched, runway-independent FTUAS to replace the MQ-7 Shadow UAS. Also part of UAS plans, air-launched effects flown from FARA, FLRAA or Black Hawks are expected to decoy, disrupt or destroy enemy air defenses and spot targets for joint forces (see “Wingman On Demand,” *Vertiflite*, March/April 2021). The Army plans first flight of a fully integrated ALTIUS — Air-Launched, Tube-Integrated Unmanned System — from a Black Hawk early this year for a rapid-fielding decision in 2025.

The US Army has long pursued technologies that enable a single operator to control multiple UAS, but whether such networked systems can really replace armed scout helicopters with insightful crews is to be determined. Israel has long been an acknowledged global leader in UAS surveillance technology, but leadership was still surprised by mass terror attacks on Oct. 7, 2023. Israeli leadership also reportedly requested more Apaches late last year for its hard urban fight in Gaza.

Ironically, to make up for its lack of an armed scout helicopter a dozen years ago, the US Army teamed the AH-64D/E Apache with the MQ-1C Gray Eagle. The results of that manned-unmanned teaming (MUM-T) justified development of FARA.

Try, Try Again

The Army transitioned the armed reconnaissance mission from the Bell OH-58D to the Boeing AH-64D in 2017 and retired its last Kiowa Warrior in 2019. Three attempts at replacement scouts failed with the cancellation of the Boeing-Sikorsky RAH-66 Comanche in 2004, the Bell ARH-70 Arapaho in 2008 and the OH-58F cockpit and sensor upgrade in 2014. FARA production quantities were never finalized, but the Army Procurement Objective for the OH-58F was

368 aircraft, and the Government Accountability Office (GAO) quoted Army plans for around 300 Future Attack Reconnaissance Aircraft. Since 2020, the Program Executive Office (PEO) for Aviation has cited FARA as the Army’s top aviation modernization priority.

FARA was also supposed to advance the helicopter state-of-the-art and help revitalize the US rotorcraft industry. Before its cancellation, FARA was one of four signature modernization efforts within the US Department of Defense Future Vertical Lift (FVL) initiative aimed at fielding greater rotorcraft speed and range with a modular open system approach (MOSA) to systems integration (see “The Moving Parts of Future Vertical Lift,” *Vertiflite*, Sept/Oct 2019).

FVL Capability Set 1 initially included UAS platforms and light attack helicopters. FARA, nevertheless, grew to be nearly as large as twin-engine Comanche, but the Army specified a single General Electric T901 ITE as government-furnished equipment for all contenders.

The Army called for responses to the FARA Competitive Prototype solicitation in mid-December 2018. Bell and Sikorsky were chosen to produce their single-engine FARA demonstrators. The Bell Model 360 Invictus and Sikorsky S-102 Raider X FARA prototypes took different paths to a 14,000-lb (6.4-metric ton) helicopter meant to fly at cruising speeds not less than 180 kt (333 km/h) and to give aircrews and ground commanders heightened battlefield awareness. The Bell Invictus applied lift-sharing wings to an articulated main rotor and canted tail rotor. Sikorsky’s Raider X integrated coaxial rigid rotors with a tail propulsor. A down-select in fiscal 2025 aimed at a FARA first unit equipped in fiscal 2030.

Both Bell and Sikorsky had essentially completed their competitive prototypes in 2022, waiting on the GE T901 engine. The FARA flight test timeline was predicated on accelerating the ITE engine by several years from its planned delivery as a legacy fleet upgrade.

More of the Same

To keep pace with changing requirements and threats, a production FARA with MOSA would integrate updated sensors, weapons and communications/navigation functions uncoupled from the original equipment manufacturers. The end of FARA this year denies the Army its new armed scout and US industry its only new military helicopter development program. The offset is more work on derivative aircraft that promises to keep production lines and suppliers open and skilled workers in place for now.

Sikorsky was due to conclude UH-/HH-60M Black Hawk deliveries under the 10th multi-year procurement contract in 2027. According to the Army, the aviation investment rebalance commits the service to a new multi-year contract and invests in unspecified upgrades for the Black Hawk. Sikorsky has long hinted at Black Hawk growth plans, but the flight-tested UH-60MU with fly-by-wire flight controls was shelved to save money

and give the Army a common fleet. Black Hawk enhancements in the aviation investment rebalance are to be determined.


Separate from new UH-60M production in Connecticut, the rebalance decision cancelled UH-60V modernization at Corpus Christi Army Depot in Texas after this year due to “significant cost growth.” Northrop Grumman developed the UH-60V digital avionics suite to give analog UH-60Ls a cockpit equal to that in new UH-60Ms (see “UH-60V — Black Hawk A-to-D,” *Vertiflite*, May/June 2015). The UH-60V cockpit was also supposed to be the first incarnation of MOSA and promised improvements that could carry over to the UH-60M fleet. With the UH-60V cancellation, the Army noted that the recapitalized airframe would have a service life of just 10 years, half that of a new UH-60M. Just how many new-build UH-60Ms will replace the 700-odd UH-60Vs in plans is also to be determined.

Though Boeing was not a player in FARA, cancellation of the attack/reconnaissance helicopter promises to put around 400 modernized CH-47F Block I cargo helicopters back through the Philadelphia factory. The investment rebalance aims to “end uncertainty over the future of the CH-47F Block II Chinook by formally entering it into production, with a path to full rate production in the future.” Block II promised increased lift with advanced composite rotor blades, but development difficulties took them out of recent remanufacture plans. Improved dynamics common to the Special Operations MH-47G could nevertheless hike gross weight of the cargo helicopter, and

Block II integrates weather radar and an enhanced digital automatic flight control system (see “Philadelphia’s Flexible Chinook Factory,” *Vertiflite*, Jan/Feb 2019).

Conspicuously absent from the aviation investment rebalance was mention of further Apache improvements. AH-64E remanufacture and new production now runs through 2029 and gives the Army over 800 advanced attack helicopters. Boeing has conducted studies of new cockpits, drag reduction efforts and auxiliary thrusters to make the heavy attack helicopter faster (see “Apache Compound,” *Vertiflite*, Jan/Feb 2017). Other changes, such as longer wings with additional stores stations, could extend range and enhance lethality to make up for the loss of FARA.

Both the Apache and the Black Hawk depend on the 3,000-shp T901 to increase payload and performance at high-density altitudes (see “Proof of Power,” *Vertiflite*, Jan/Feb 2024). The rebalance effort delays ITE production to allow more time for integration into Enduring Fleet helicopters.

Just how and when the aviation investment rebalance will benefit Army Aviation is to be determined. Cancellation of the Comanche in February 2004 (exactly 20 years ago) funded the digital Black Hawk, Apache and Chinook of today’s Enduring Fleet. Nevertheless, it left the US Army without an armed reconnaissance helicopter, and that recurring requirement remains unmet. 

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