The US Army recently clarified its schedule for meeting key markers in the Future Long-Range Assault Aircraft (FLRAA) program. The Army selected the Bell V-280 Valor for the FLRAA program in December 2022 (see “FLRAA Tilts to Bell,” Vertiflite, Jan/Feb 2023).

Speaking at Forum 80 on May 7 (see “Forum 80: Ideas Earn Their Way,” pg. 26), Michelle Gilbert — the Technical Branch Chief for the Army’s FLRAA Project Office — noted that the service will hold a Milestone B review, which is required before entering the Engineering and Manufacturing Development (EMD) phase, this June.

If approved, the critical design review (CDR) — a decision that determines whether the system satisfies key performance requirements within cost, schedule and risk considerations — will be held in spring/summer of next year. In parallel to that, Gilbert explained, “we are going to lean forward and start building our prototype aircraft,” with first delivery in the fiscal year 2026 (FY26) timeframe and the first production aircraft to be delivered in FY30. “So, we are a very fast-moving program and so it’s exciting.”

The program has been making significant progress already this year. In February, the Joint Requirements Oversight Council (JROC) approved FLRAA’s updated capability development document (CDD), which specifies the operational requirements for the FLRAA weapon system.

Then, in late March, the Army held a preliminary design review (PDR) of the full FLRAA weapon system, a key prerequisite to entering Milestone B. One of the outcomes of the PDR, according to BreakingDefense.com, was a decision by the Army and US Special Operations Command (SOCOM) to incorporate provisions into FLRAA’s baseline design that will allow SOCOM to configure the aircraft for its own usage, bolstering SOCOM’s interest in also acquiring the V-280.

At the Army Aviation Association of America (Quad-A) annual summit in April, Bell displayed its full-scale V-280 mock-up as well as a small model of its updated FLRAA configuration. An April 26 Aviation Week article on the summit highlighted several differences between the now-retired V-280 technology demonstrator and the FLRAA vision vehicle. Journalist Brian Everstine noted “changes to the outer mold line, including… raised sliding cabin doors” with only two windows instead of four on the demonstrator. The model also showed “a refueling probe, something needed for a special operations variant, along with an extended nose… a revised wing fairing shape and a deeper gear sponson, and the V-tail appears shorter.”

Furthermore, he noted, “The engine nacelles are significantly different than the joint multirole [JMR] technology demonstrator model, with a differently shaped side inlet, and a flatter spinner….” In addition, the cockpit windows on the model were comprised of only four sections, rather than five for the JMR demonstrator. The new configuration eliminated the three-part windscreen of the demonstrator, the downward view of the sides, and skyward view of ceiling windows. Presumably the reduction in glass for the cockpit and the cabin is to provide more ballistic protection.

The first increment of FLRAA will be an aircraft that has the transformative capabilities of “twice as far/twice as fast” as the Black Hawk, Gilbert explained, “while providing fly-by-wire flight control technology Level 1 handling qualities, supporting self-deployment, as well as supporting the medevac mission.”

Gilbert also highlighted the benefits of the Army’s digital engineering innovations and modular open systems approach (MOSA), which will reduce the time span for fielding FLRAA and take out cycle time for future sustainability and improvements. MOSA creates a more “plug-and-play” environment for new technologies to be incorporated into the FLRAA platform in the future.

“We are a pilot program for [the Army] on digital engineering and we are considered a ‘born digital’ program,” Gilbert said. Later in May, the Army released a new directive on digital engineering and highlighted FLRAA as a pathfinder.