Future Long Range Assault Aircraft (FLRAA)



The Army is completing technology development efforts for the Future Long Range Assault Aircraft (FLRAA) program. The Army is using the Middle Tier of Acquisition (MTA) rapid prototyping approach to produce a virtual prototype prior to transitioning to a Major Capability Acquisition pathway in late FY23. The Army has been transparent and collaborative while developing the FLRAA acquisition strategy and supporting T&E strategy.

SYSTEM DESCRIPTION

The Army intends FLRAA to be the next generation of verticallift, assault, and intra-theater aeromedical evacuation aircraft. It is a medium-lift helicopter that will augment or replace a portion of the Army's UH-60 Black Hawk utility helicopter fleet. The Army intends FLRAA to provide Combat Aviation Brigades with longrange, high-speed utility aircraft that are survivable in contested environments.

The FLRAA will serve a role in what the Army is terming the Future Vertical Lift (FVL) ecosystem, in which the different programs within the FVL ecosystem (e.g., Future Attack Reconnaissance Aircraft, Air Launched Effects, and Future Tactical Unmanned Aerial System) contribute to the effectiveness and holistic survivability of all FVL programs in a multi-domain environment.

MISSION

Units will utilize FLRAA's increased speed, range, and maneuverability to assault enemy forces from areas of relative safety outside the range of enemy long-range fires. The FLRAA will be effective, decisive, and survivable in the lower tier of the air domain. It will integrate other programs within the FVL ecosystem to ensure mission success.

PROGRAM

The Army was granted entry into the MTA pathway as a rapid prototyping effort in May 2021. Their MTA efforts will culminate in a virtual prototype of the FLRAA to reduce risk prior to prototype aircraft production. The Army plans to transition to a post-Milestone B Major Capability Acquisition program in late FY23 as an Acquisition Category IB program. The Army's Milestone B **Test and Evaluation Master Plan** (TEMP) is in development with excellent collaboration with the T&E community.

The program underwent a Competitive Demonstration and Risk Reduction (CD&RR) phase between two vendors: Bell Textron Incorporated and a Sikorsky-Boeing partnership. The Sikorsky-Boeing partnership proposal is based on the SB>1 Defiant technology demonstrator (left), and the Bell Textron Incorporated proposal is based on the tiltrotor V-280 Valor technology demonstrator (right).

» MAJOR CONTRACTORS

 Bell Textron Incorporated – Fort Worth, Texas Sikorsky Aircraft Corporation, a Lockheed Martin Company – Stratford, Connecticut

TEST ADEQUACY

The FLRAA program is developing a TEMP to support a Milestone B decision. The top-level plan is to develop flight-worthy aircraft prototypes in FY25, followed by a Limited User Test (LUT) in FY27, a Milestone C decision in FY28, and a Full-Rate Production decision in FY30. The FLRAA T&E Workinglevel Integrated Product Team hosts meetings on a regular basis to support test planning and TEMP updates.

PERFORMANCE

» EFFECTIVENESS, SUITABILITY, AND SURVIVABILITY

No operational testing has been conducted to assess its effectiveness, suitability, and survivability. Transparency and collaboration has been a highlight of the FLRAA program. The Program Office engages stakeholders across the test community in order to minimize misunderstandings and strengthen

lines of communication. They frequently coordinate with the joint community to leverage best practices and lessons learned from other Services. The program is developing their post-Milestone B TEMP to incorporate candid feedback from the test community. The Program Office should increase coordination across the FVL ecosystem to ensure complementary test strategies across FVL efforts. The FLRAA program has set a solid foundation for a successful program if current practices are retained.

RECOMMENDATION

The Program Office should:

 Increase coordination across the FVL ecosystem to ensure complementary test strategies across FVL efforts.