

## Joint Assault Bridge (JAB)

### Executive Summary

- In FY18, the Army completed the LFT&E program to assess platform survivability against a spectrum of operationally realistic threats. The LFT&E program included Automatic Fire Extinguishing System (AFES) tests, armor tests, ballistic components tests, controlled damage experiments (CDEs), system-level tests, and full-up system-level (FUSL) tests. Preliminary assessments demonstrate that the current vehicle design requires some material fixes to achieve the Key Performance Parameter requirements.
- DOT&E plans to complete a detailed classified Joint Assault Bridge (JAB) LFT&E report to support the Full-Rate Production (FRP) decision in 4QFY19.

### System

- The JAB replaces the Wolverine and M48/M60 chassis-based Armored Vehicle Launched Bridge systems in the Armored Brigade Combat Team (ABCT) Brigade Engineer Battalions (BEB) and in Mobility Augmentation Companies (MAC) supporting ABCT operations.
- The JAB was also designed to support M1 Abrams-equipped units in Marine Air Ground Task Forces (MAGTF). The Army assumed the lead for the JAB program in 2010 after the Marine Corps canceled the program due to cost and performance concerns. The Marine Corps remains involved and is seeking to procure 28 JAB systems in collaboration with the Army.
- The design concept includes an overhauled M1A1 Abrams chassis with M1A2 heavy suspension, and a contractor designed and integrated hydraulics system to launch the Bridge.
- Program goals for JAB include adequate survivability, improved mobility ensuring freedom of maneuver, improved supportability, and enabling use of common battlefield communication suites.



- In 2015, the Army increased the JAB Acquisition Objective from 168 to 337 assets to support the Army force structure changes that affected the BEB and MAC. The increase in vehicle quantity changed the JAB to an Acquisition Category (ACAT) II program.
- The JAB program awarded the production procurement contract to DRS Technologies, Inc. after full and open competition in 3QFY16.

### Mission

Commanders employ JAB to enable the ABCT and MAGTF to close with and destroy the enemy by maneuvering over natural and man-made obstacles that would otherwise prevent the BCTs freedom of maneuver.

### Major Contractor

DRS Technologies, Inc. – St. Louis, Missouri

### Activity

- In March 2018, the Army completed the LFT&E program in accordance with the DOT&E-approved Test and Evaluation Master Plan (TEMP) and test plan.
- LFT&E events included AFES, armor, ballistic components, CDEs, system-level, and FUSL tests against underbody blast mine threats and direct and indirect fire threats. LFT&E will support the 4QFY19 FRP decision.
- The Program Office is working on potential design changes to the vehicle to address vulnerabilities found during exploitation and FUSL testing. Follow-on testing will be conducted and is tentatively scheduled for 3QFY19 to determine if

the vehicle design changes adequately mitigated the known vulnerabilities.

### Assessment

- Preliminary survivability analysis identified vehicle design vulnerabilities that the Program Office is addressing with the vendor to consider design improvements.
- DOT&E plans to complete a detailed survivability analysis on the performance of the JAB against operationally relevant threats. This analysis will support the DOT&E classified JAB LFT&E report in FY19.

## **Recommendation**

1. The Army should correct design deficiencies and vehicle vulnerabilities found in testing and validate those fixes and mitigation techniques in test.