

# Stryker Family of Vehicles (FoV)

The Army conducted a FOT&E between May and June 2021 to support a Stryker Common Remotely Operated Weapon Station – Javelin (CROWS-J) fielding decision. While testing was adequate to evaluate the crews’ ability to identify and engage targets using the improved CROWS-J sights, crew-served weapons, and Javelin missiles, the Army must address several shortfalls to improve Stryker CROWS-J operational effectiveness, suitability, and survivability.



## System Description

The CROWS-J and the 30mm Medium Caliber Weapon System (MCWS) are lethality upgrades to the existing Stryker FoV. The Army intends for the CROWS-J to address the obsolescence of the Fire Control Unit, replace the current Remote Weapons System, enable remote firing of a Javelin missile, improve Thermal Imaging Module optics, and integrate smoke grenade launchers. The 30mm MCWS integrates the XM813 cannon (30x173mm) onto a Stryker Double V Hull, equipped with a primary day/night optic intended to enable lethal effects against targets at a range of 3,500 meters while maintaining comparable mobility characteristics of the baseline vehicle.

## Program

The Stryker FoV, including its lethality upgrades, is an Acquisition Category IC program. DOT&E approved the Test and Evaluation Master Plan annexes for the CROWS-J in September 2019 and 30mm MCWS in June 2021.

The Army intends to field the CROWS-J under an Urgent Material Release, and continue fielding subsequent brigades under a Conditional Material Release.

The Army executed a multi-vendor competition from August-December 2020 to select a design solution for the 30mm MCWS. The Army intends to begin fielding the First Unit Equipped (1-2 ID) under a Conditional Material Release followed by an execution of FOT&E.

## Major Contractors

- CROWS-J:
  - Kongsberg Protech Systems – Kongsberg, Norway; Johnstown, Pennsylvania (Primary System).
  - Raytheon & Lockheed Martin – Tucson, Arizona (Components).

- General Dynamics Land Systems – Sterling Heights, Michigan; Anniston, Alabama (Integrator).
- 30mm MCWS:
  - Oshkosh Defense, LLC – Oshkosh, Wisconsin.

Details on CROWS-J operational effectiveness and suitability are available in the DOT&E unclassified CROWS-J FOT&E report published in November 2021. The classified annex to the CROWS-J FOT&E report details the assessment of the CROWS-J survivability in a contested environment.

## Test Adequacy

The Army conducted a FOT&E between May and June 2021 to support a CROWS-J fielding decision. The Army conducted the FOT&E in accordance with the DOT&E-approved test plan.

Testing was adequate to evaluate the crews' ability to identify and engage targets using the improved CROWS-J sights, crew-served weapons, and Javelin missiles. Crews completed standard qualification gunnery, fired 12 live and 12 simulated Javelin missiles, and conducted target identification against threat and friendly vehicles.

In June 2021, the Army completed CROWS-J live fire testing in accordance with DOT&E-approved test plans. Testing, conducted on a non-functional ballistic hull asset, was adequate to evaluate force protection during a kinetic threat engagement, including direct and indirect hits to the externally stowed Javelin missiles.

The Army Test and Evaluation Command conducted a Cooperative Vulnerability and Penetration Assessment and Adversarial Assessment from June 7-24, 2021 at Aberdeen Proving Ground, Maryland in accordance with the DOT&E-approved test plans.

## Performance

In accordance with the Stryker Security Classification Guide, the assessment of the Stryker operational effectiveness and suitability is detailed in the Controlled Unclassified Information edition of this report and the CROWS-J FOT&E report published in November 2021. The report details an assessment of the ability of the Stryker unit equipped with the CROWS-J to identify and engage targets, and evaluates the probability of target identification requirement. The report also includes an assessment of reliability, operational availability and New Equipment Training.

## Recommendations

The Army should:

1. Address the CROWS-J recommendations documented in the CROWS-J FOT&E report published in November 2021.
2. Consider full integration of the CROWS-J evaluation into the 30mm MCWS FOT&E in 3QFY23 to fully evaluate CROWS-J operational effectiveness, suitability, and survivability.