



**DEPARTMENT OF THE ARMY**  
**Next Generation Combat Vehicle- Cross Functional Team**  
**6501 EAST 11 MILE ROAD**  
**DETROIT ARSENAL, MICHIGAN 48397-5000**

FCCV-DI

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MEMORANDUM THRU Commander, U.S. Army Futures Command

FOR Chief of Staff, U.S Army

SUBJECT: Updated Optionally Manned Fighting Vehicle (OMFV) Characteristics

1. **Problem.** Our adversaries will overmatch the M2 Bradley Fighting Vehicle within the next decade, and the Bradley lacks sufficient growth margins for insertion of new technologies. The Army must begin development of its replacement to ensure decisive overmatch on future battlefields.

2. **Solution.** The Optionally Manned Fighting Vehicle (OMFV), as part of an Armored Brigade Combat Team (ABCT), will replace the Bradley to provide the capabilities required to defeat a future near-peer competitor's force. The Army is seeking a **transformational** increase in warfighting capability, not simply another incremental improvement over the current Bradley Fighting Vehicle.

3. **Concept of Employment.** As part of an ABCT, the OMFV will not fight alone, but rather as part of a section, platoon, and company of mechanized infantry. These companies will execute cross-domain maneuver and defeat pacing threats in the close area while maneuvering Soldiers to tactical objectives. Once the unit has transitioned to an integrated mounted and dismounted fight, the OMFV supports our Soldiers with advanced sensors, lethality, protection, and mission command.

4. **Objectives.** The Army has identified the following vehicle characteristics. They are prioritized, with updates to Survivability, Transportability, and Manning:

- a. **Survivability.** The OMFV shall be survivable against modern medium-caliber direct fire (frontal), artillery and bomblets, Anti-Tank Guided Missiles (ATGMs), and Rocket Propelled Grenades (RPGs). The OMFV shall protect the Soldiers from underbody blast, Explosively Formed Penetrators (EFPs), hand-thrown grenades, and CBRN threats. The OMFV should reduce likelihood of detection by minimizing thermal, visual, and acoustic signatures.
- b. **Mobility.** The OMFV must have mobility that can keep pace with the Abrams in a combined arms fight through rural and urban terrain.
- c. **Growth.** The OMFV must possess the growth margins and open architecture required for rapid upgrades and insertion of future technologies such as mission command systems, protection systems, and sensors.
- d. **Lethality.** The OMFV equipped platoons must defeat future near-peer soldiers, infantry fighting vehicles, helicopters, small unmanned aerial systems, and tanks as part of a Combined Arms Team in rural and urban terrain.
- e. **Weight.** The OMFV must traverse 80% of Main Supply Routes (MSRs), national highways, and bridges in pacing threat countries, and reduce the cost of logistics and maintenance. Designs

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must allow for future growth in components and component weights without overall growth of vehicle weight through modularity and innovation.

- f. **Logistics.** The OMFV must reduce the logistical burden on ABCTs and must be equipped with advanced diagnostic and prognostic capabilities. Advanced manufacturing and other innovative techniques should be included in the design that reduce the time and cost of vehicle repairs.
- g. **Transportability.** The OMFV must be worldwide deployable by standard inter- and intra-theater sea, waterway, air, rail, and road modes of transportation. The OMFV shall meet transport requirements for NATO Envelope M.
- h. **Manning.** A platoon of OMFVs will transport 30 Soldiers that dismount from the vehicles. Each OMFV vehicle will be crewed by no more than two Soldiers who will be positioned in the hull. Squad members can perform crew duties prior to dismounting the OMFV but the vehicles must remain operational after dismounting. The OMFV should allow commanders to choose between manned or remote operation based on the tactical situation.
- i. **Training.** The OMFV should contain embedded training capabilities that are compatible with the Synthetic Training Environment (STE).

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