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Infantry Brigade Combat Team (IBCT) Mobility, Reconnaissance, and Firepower Programs

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Summary

Infantry Brigade Combat Teams (IBCTs) constitute the Army's "light" ground forces and are an important part of the nation's ability to project forces overseas. The wars in Iraq and Afghanistan, as well as current thinking by Army leadership as to where and how future conflicts would be fought, suggest IBCTs are limited operationally by their lack of assigned transport and reconnaissance vehicles as well as firepower against hardened targets and armored vehicles.

There are three types of IBCTs: Light, Airborne, and Air Assault. Light IBCTs are primarily foot-mobile forces. Light IBCTs can move by foot, by vehicle, or by air (either air landed or by helicopter). Airborne IBCTs are specially trained and equipped to conduct parachute assaults. Air Assault IBCTs are specially trained and equipped to conduct helicopter assaults.

Currently, the Army contends IBCTs face a number of limitations:

- The IBCT lacks the ability to decisively close with and destroy the enemy under restricted terrains such as mountains, littorals, jungles, subterranean areas, and urban areas to minimize excessive physical burdens imposed by organic material systems.
- The IBCT lacks the ability to maneuver and survive in close combat against hardened enemy fortifications, light armored vehicles, and dismounted personnel.
- IBCTs lack the support of a mobile protected firepower capability to apply immediate, lethal, long-range direct fires in the engagement of hardened enemy bunkers, light armored vehicles, and dismounted personnel in machine gun and sniper positions; with all-terrain mobility and scalable armor protection; capable of conducting operations in all environments.

To address these limitations, the Army is undertaking three programs: the Ground Mobility Vehicle (GMV), formerly known as the Ultra-Light Combat Vehicle (ULCV); the Light Reconnaissance Vehicle (LRV); and Mobile Protected Firepower (MPF) programs. These programs would be based on vehicles that are commercially available. This approach serves to reduce costs and the time it takes to field combat vehicles.

The GMV is intended to provide mobility to the rifle squad and company. The LRV would provide protection to the moving force by means of scouts, sensors, and a variety of medium-caliber weapons, and the MPF would offer the IBCT the capability to engage and destroy fortifications, bunkers, buildings, and light-to-medium armored vehicles more effectively.

Potential issues for Congress related to IBCTs include DOD Mobility Capabilities and Requirements Study and IBCT deployability; Security Force Assistance Brigades (SFABs) and GMV, LRV, and MPF requirements; and GMV, LRV, and MPF fielding plans.

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Why Is This Issue Important to Congress?

Infantry Brigade Combat Teams (IBCTs) constitute the Army's "light" ground forces and are an important part of the nation's ability to rapidly project forces overseas. The wars in Iraq and Afghanistan, as well as current thinking as to where and how future conflicts would be fought, suggest IBCTs are limited operationally by their lack of assigned transport and reconnaissance vehicles as well as firepower against hardened targets and armored vehicles.

To address these limitations, the Army is undertaking three programs: the Ground Mobility Vehicle (GMV), formerly known as the Ultra-Light Combat Vehicle (ULCV); the Light Reconnaissance Vehicle (LRV); and Mobile Protected Firepower (MPF) programs. These programs would be based on vehicles that are commercially available. This is in order to reduce costs and the time it takes to field combat vehicles associated with traditional developmental efforts.

Congress may be concerned with the effectiveness of ground forces over the full spectrum of military operations. A number of past unsuccessful Army acquisition programs have served to heighten congressional oversight of Army programs, including nondevelopmental programs such as those currently being proposed for IBCTs. In addition to these primary concerns, how these new programs affect deployability and sustainability of IBCTs as well as affordability could be potential oversight issues for Congress.

Background

Brigade Combat Teams (BCTs) are the basic combined-arms formations of the Army. They are permanent, stand-alone, self-sufficient, and standardized tactical forces consisting of between 3,900 to 4,100 soldiers.[1] There are three types of BCTs: Armored Brigade Combat Teams (ABCTs); Stryker Brigade Combat Teams (SBCTs); and Infantry Brigade Combat Teams (IBCTs). BCTs are found both in the Active Component and the U.S. Army National Guard (USARNG).

In February 2017 the Army announced it would establish six Security Force Assistance Brigades (SFABs)—five in the Active Component and one in the Army National Guard (ARNG).[2] SFABs are to be capable of conducting security force assistance (SFA)[3] operations at the tactical (brigade and below) level. While not combat brigades per se, the Army plans for SFABs to be expanded, if the need arises, into fully operational ABCTs or IBCTs capable of conducting major combat operations.

[1] Association of the United States Army (AUSA), Profile of the U.S. Army, 2016, p. 24.

[2] U.S. Army Public Affairs, "Army Creates Security Force Assistance Brigade and Military Advisor Training Academy at Fort Benning," February 16, 2017.

[3] Security Force Assistance (SFA) is defined by the Department of Defense as unified action to generate, employ, and sustain local, host nation or regional security forces in support of a legitimate authority. By definition, "security forces include not only military forces, but also police, border forces, and other paramilitary organizations, as well as other local and regional forces." SFA involves organizing, training, equipping, rebuilding, and advising foreign security forces (FSF).

Types and Numbers of BCTs

Table 1. Types and Number of BCTs, FY2019

TYPE	Active Component	U.S. Army National Guard
Armored Brigade Combat Teams (ABCTs)	11	5
Infantry Brigade Combat Teams (IBCTs)	13	20
Light	5	20
Airborne	5	—
Air Assault	3	—
Stryker Brigade Combat Teams (SBCTs)	7	2
TOTALS	**31**	**27**

Source: Information provided to CRS by U.S. Army Office Chief of Legislative Liaison (OCLL), April 4, 2018.

There are three types of IBCTs: Light, Airborne, and Air Assault.

Light IBCTs

Light IBCTs are primarily foot-mobile forces. Light IBCTs can move by foot, vehicle, or air (either air landed or by helicopter). While IBCTs have light- and medium-wheeled vehicles for transport, there are not enough vehicles to transport all or even a significant portion of the IBCT's infantry assets in a single movement.

Airborne IBCTs

Airborne IBCTs are specially trained and equipped to conduct parachute assaults. They are equipped with limited vehicular assets, and once they have conducted a parachute assault, they move by foot, vehicle, or helicopter, just like Light IBCTs.

Air Assault IBCTs

Air Assault IBCTs are specially trained and equipped to conduct helicopter assaults. What sets them apart from Light and Airborne IBCTs (which can also conduct helicopter assaults) is that they receive additional specialized training; the division to which these BCTs are assigned—the 101st Airborne Division—has the primary mission and organic helicopter assets to conduct large-scale helicopter assaults.

How IBCTs Are Employed[4]

The Army's Field Manual on Brigade Combat Teams describes how IBCTs are employed as follows:

> The role of the IBCT is to close with the enemy using fire and movement to destroy or capture enemy forces, or to repel enemy attacks by fire, close combat, and counterattack.

[4] Information in the section is taken directly from Army Field Manual (FM) 3-96, Brigade Combat Team, October 2015, pp. 1-2.

> Fire and movement is the concept of applying fires from all sources to suppress, neutralize, or destroy the enemy, and the tactical movement of combat forces in relation to the enemy (as components of maneuver applicable at all echelons). At the squad level, fire and movement entails a team placing suppressive fire on the enemy as another team moves against or around the enemy.
>
> The IBCT performs complementary missions to SBCTs and ABCTs. IBCT complementary missions include control of land areas, populations, and resources. The IBCT optimizes for the offense against conventional, hybrid, and irregular threats in severely restrictive terrain. The IBCT performs missions such as reducing fortified areas, infiltrating and seizing objectives in the enemy's rear, eliminating enemy force remnants in restricted terrain, securing key facilities and activities, and conducting stability in the wake of maneuvering forces.
>
> IBCTs easily configure for area defense and as the fixing force component of a mobile defense. The IBCT's lack of heavy combat vehicles reduces its logistic requirements. Not having heavy combat vehicles gives higher commanders greater flexibility when adapting various transportation modes to move or maneuver the IBCT.

Operational Environment

Chief of Staff of the Army General Mark A. Milley characterizes the operational environment confronting the Army as follows:

> I believe we are on the cusp of a fundamental change in the character of war. Technology, geopolitics and demographics are rapidly changing societies, economies, and the tools of warfare. They are also producing changes in why, how and where wars are fought—and who will fight them. The significantly increased speed and global reach of information (and misinformation) likewise will have unprecedented effects on forces and how they fight.
>
> For example, the proliferation of effective long-range radars, air defense systems, long-range precision weapons, electronic warfare, and cyber capabilities enables adversary states to threaten our partners and allies. Even if we do not fight the producers of these sophisticated weapons, warfare will become more lethal as they export this advanced equipment to their surrogates or customers. Crises involving such adversaries will unfold rapidly, compressing decision cycles and heightening the risks of miscalculation or escalation.
>
> Conflict will place a premium on speed of recognition, decision, assembly and action. Ambiguous actors, intense information wars and cutting-edge technologies will further confuse situational understanding and blur the distinctions between war and peace, combatant and noncombatant, friend and foe—perhaps even humans and machines.
>
> Warfare in the future will involve transporting, fighting and sustaining geographically dispersed Army, joint and multinational forces over long and contested distances, likely into an opposed environment and possibly against a technologically sophisticated and numerically superior enemy. All domains will be viciously contested, and both air and maritime superiority—which have been unquestioned American advantages for at least 75 years—will no longer be a given. Forces in theater should expect to operate under increased public scrutiny, persistent enemy surveillance, and massed precision long-range fires with area effects. Close combat on sensor-rich battlefields of the future will be faster, more violent and intensely lethal, unlike anything any of us have witnessed. And the majority of our operations will likely occur in complex, densely populated urban terrain.[5]

[5] "Chief of Staff of the Army: Changing Nature of War Won't Change Our Purpose," Association of the United States Army (AUSA), October 1, 2016.

In relation to this operational environment, IBCTs are presented with the following challenges:

> In the past, light infantry of the 82nd Airborne, 101st or 10th Mountain Division would either air drop by parachute, helicopter air assault, or air land at a friendly or secured airfield or land near one to seize it. However, Anti-Access Area Denial (A2AD) technology and weapons, like air defense systems and anti-armor, mines and improvised explosive devices (IEDs), have become both more effective and prevalent. These open the question of whether traditional insertion drop or landing zone is feasible any longer. It is increasingly likely that an "off set insertion" will be necessary with the ground force then moving by land to the objective or operating area.
>
> The concept itself is largely an upscaling of what U.S. and other nations' special operations, reconnaissance, and even some airborne units have been doing for some time: using light vehicles, including light armored vehicles that are inserted by airdrop, helicopter, or tactical transport air landing. Using the vehicles they are able to insert discretely where they are unlikely to be detected and then conduct their missions.[6]

Current and Projected IBCT Capability Gaps

The Army describes IBCT critical capability gaps from 2017 to 2021 as follows:[7]

- The IBCT lacks the ability to decisively close with and destroy the enemy under restricted terrains such as mountains, littorals, jungles, subterranean areas, and urban areas to minimize excessive physical burdens imposed by organic material systems.
- The IBCT lacks the ability to maneuver and survive in close combat against hardened enemy fortifications, light armored vehicles, and dismounted personnel.
- IBCTs lack the support of a mobile protected firepower capability to apply immediate, lethal, long-range direct fires in the engagement of hardened enemy bunkers, light armored vehicles, and dismounted personnel in machine gun and sniper positions; with all-terrain mobility and scalable armor protection; capable of conducting operations in all environments.

How Programs Address Capability Gaps

In its current configuration, Army officials note that IBCTs "can get there fast with low logistics demand, and they can work in severely restricted terrain, but they lack mobility and protected firepower"[8] to "enter a foreign territory, immediately overcome armed opposition and hold an area that enables further troops to enter, like an airfield."[9]

The Army's concept of operation for these vehicles is to

- increase ground tactical mobility in the IBCT;

[6] Stephen W. Miller, "Ground Mobility for U.S. Light Infantry," *Military Technology*, October 2016, p. 49.

[7] Information in this section is taken directly from an Army G-3/5/7 briefing given to Senate staffers on "Mobile Protected Firepower, Ultra-Light Combat Vehicle & Light Reconnaissance Vehicle," November 3, 2014, p. 5, and comments from Army Staff, September 15, 2017.

[8] Joe Gould, "U.S. Army Researches Light Vehicle Concepts, Futures Chief Says," *Defense News*, December 16, 2014.

[9] Joe Gould, "U.S. Army Officials: Field Ultralight Vehicles Quickly," *Defense News*, January 15, 2015.

- allow infantry squads and rifle companies to quickly move extended distances over difficult terrain to seize assault objectives;
- allow rapid deployment into contested areas while providing high mobility and flexibility upon arrival; and
- limit the impact on strategic mobility of the IBCT.[10]

In this regard, the GMV is intended to provide mobility to the rifle squad and company; the LRV to provide protection to the moving force by means of scouts, sensors, and a variety of medium-caliber weapons; and the MPF to provide the overall IBCT the capability to more effectively engage and destroy fortifications, bunkers, buildings, and light to medium armored vehicles.

The Systems[11]

The GMV, LRV, and MPF are briefly described in the following sections based on each individual vehicle's requirements.

Ground Mobility Vehicle (GMV)

Figure 1. Illustrative GMV

Source: John Keller, "General Dynamics Wins SOCOM Competition to Build Ground Mobility Vehicle GMV 1.1," *Military & Aerospace Electronics,* August 25, 2013.

[10] Project Manager Transportation Systems, GMV Industry Day Briefing, August 9, 2016, p. 7. Ground tactical mobility is a unit's ability to move under combat conditions on the ground to a combat objective. Strategic mobility is the unit's ability to deploy from home station—normally by air or by sea—to a designated operational area.

[11] Information in this section is taken directly from an Army G-3/5/7 briefing given to Senate staffers on "Mobile Protected Firepower, Ultra-Light Combat Vehicle & Light Reconnaissance Vehicle," November 3, 2014, p. 6, and comments from Army Staff, September 15, 2017.

- **Payload:** Nine soldiers/3,200 pounds capacity.
- **Transportability:** UH-60 sling load/CH-47 internal load; Air drop from C-130.
- **Mobility:** Provide mobility 75% cross-country; 10% primary roads; 10% secondary roads; 5% urban rubble environment.
- **Protection:** Provided by high mobility avoiding enemy contact and soldier Personal Protection Equipment (PPE).[12]
- **Lethality:** Provide capability to host crew-served weapons assigned to the infantry squad.
- **Command, Control, Communications, Computers, Intelligence, Reconnaissance, and Surveillance (C4ISR):** No requirement for added communication equipment or Size, Weight, Power, and Cooling (SWaP-C) organic equipment of the infantry squad.

Light Reconnaissance Vehicle (LRV)

Figure 2. Illustrative LRV

Source: Colin Clark and Sydney J. Freedberg Jr., "Oshkosh Shows Off Big Gun JLTV: 30mm Cannon," *Breaking Defense*, October 12, 2015.

- **Transportability:** CH-47 internal load (in combat configuration). Air drop from C-130.
- **Range:** Greater than 300 miles on internal fuel.
- **Mobility**: Provide mobility 75% cross-country; 10% primary roads; 10% secondary roads; 5% urban rubble environment.
- **Lethality:** Medium-caliber weapon system to provide precision "stand-off" lethality against small arms and offense against light armored vehicles.
- **Protection:** Protection from small arms.

[12] PPE includes a soldier's helmet, body armor, and other accoutrements designed to protect against blast; fragmentation; thermal; and nuclear, biological, and chemical (NBC) threats.

- **Capacity:** Six scouts with combat equipment.
- **Command, Control, Communications, Computers, Intelligence, Reconnaissance, and Surveillance (C4ISR):** Ensure sufficient Size, Weight, Power, and Cooling (SWaP-C) to facilitate the integration of current and future communications organic to an IBCT. Support scout sensor package.

Mobile Protected Firepower (MPF)

Figure 3. Illustrative MPF

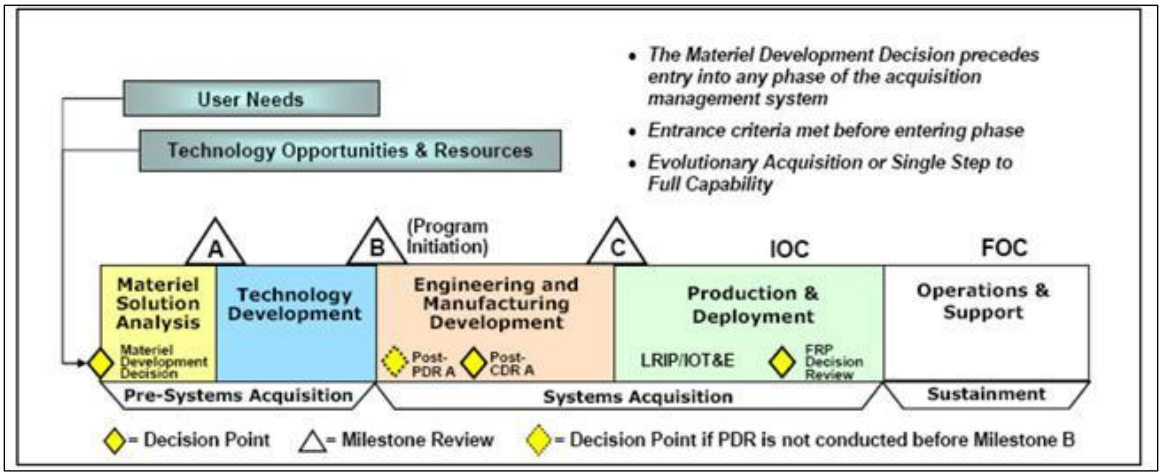
Source: Margaret C. Roth, "Vehicular Visions," *Army News Service,* February 9, 2017.

- **Range:** 300 kilometer range; 24-hour operations "off the ramp" or on "arrival at drop zone (DZ)."
- **Mobility:** Capable of traversing steep hills, valleys typical in cross-country and urban terrain, and ford depths equal to that of other organic IBCT vehicles.
- **Lethality:** Ability to defeat defensive fortifications (bunkers), urban targets (behind the wall), and armored combat vehicles.
- **Protection:** Scalable armor to include underbelly protection.
- **Communications Network:** SWaP-C sufficient to support current and future communications organic to an IBCT.

Programmatic Overview

The following sections provide brief programmatic overviews of the vehicles. **Figure 4** depicts the Department of Defense (DOD) Systems Acquisition Framework, which illustrates the various phases of systems development and acquisitions and is applicable to the procurement of these three systems.

Figure 4. DOD Systems Acquisition Framework



Source: Defense Acquisition University Defense Acquisition Portal, at https://dap.dau.mil/aphome/das/Pages/Default.aspx, accessed September 5, 2017.

The Army's Acquisition Strategy

The Army plans to acquire the vehicles as modified Non-Developmental Item (NDI) platforms. Because the Army adopted the NDI acquisition approach for all three vehicles, the Army can enter the programs at Acquisition Milestone C: Production and Deployment, and forgo the Technology Development Phase associated with developmental items (systems developed "from scratch") if so desired. Variations of these vehicles already exist commercially, and in order to meet Army requirements, they would require minor modifications. The Army chose this acquisition strategy because a survey of potential candidates suggested a number of existing vehicles—with minor modifications—could meet the Army's requirements. In the case of the MPF, which was less well-developed than the GMV, the MPF underwent an Analysis of Alternatives (AoA) as part of the Material Solution Analysis phase, which was completed September 7, 2017.[13]

Theoretically, adopting a NDI approach for all three vehicles could lead to a shorter acquisition time line and a less expensive overall acquisition. The NDI approach is not without risk, however, as the Technology Development Phase permits a more detailed examination of candidate systems, which can help identify and address requirement shortfalls earlier in the acquisition process (a less expensive solution as opposed to identifying and correcting problems later in a system's development). In all cases, a full and open competition is expected for all three vehicles.

GMV

In March 2015, the Army changed the name of its Ultra-Light Combat Vehicle (ULCV) to the Ground Mobility Vehicle (GMV).[14] The overall GMV Army Acquisition Objective (AAO) is 2,065 vehicles for the Army and 317 vehicles for U.S. Army Special Operations Command (USASOC). The specific near-term requirement is 295 vehicles for the five Airborne IBCTs and

[13] Jen Judson, "U.S. Army on Fast Track to Get Mobile Protected Firepower into the Force," *Defense News*, June 28, 2017, and comments from Army Staff, September 15, 2017.

[14] Joe Gould, "US Army to Issue Ultralight Vehicle RFP Next Year," *Defense News*, September 5, 2015.

317 vehicles for USASOC.[15] The Army's FY2018 budget request modified the Army's original acquisition strategy for the GMV, essentially splitting it into two phases.[16] In the first phase, the Army plans to procure GMVs for the five Airborne IBCTs through a U.S. Special Operations Command (USSOCOM) contract already in place for a similar vehicle (GMV 1.1) for USSOCOM forces. In this case, the Army plans to purchase the Flyer 72 vehicle from General Dynamics Ordnance and Tactical Systems.[17] The Army contends the limited buy of 295 GMV 1.1 vehicles for the five Airborne IBCTs is the quickest way to field this interim capability that has gone through USSOCOM-sponsored testing and shares the same repair parts, thereby reducing costs.

The second phase of the GMV program would be to acquire 1,700 GMVs through a full and open competition once the Army has refined its requirements, which is intended to reduce the overall cost. Army officials note the GMV 1.1 procurement cost will be higher, however, than the cost of the GMVs procured through full and open competition. The Army plans to spend $194.8 million for 718 vehicles from FY2018 to FY2022, with an expectation that a contract award would be made in FY2020.[18]

LRV

Army officials are currently planning to use the Joint Light Tactical Vehicle (JLTV)[19] to serve as the LRV on an interim basis.[20] From a programmatic perspective, the Army refers to its interim LRV solution as the Joint Light Tactical Vehicle-Reconnaissance Vehicle (JLTV-RV). The JLTV, which is currently in production, could be equipped with additional firepower and sensors to serve in this role while the Army continues to refine its requirements for the LRV. The standard JLTV—at around 18,000 pounds and carrying only four soldiers—does not meet the Army's weight and crew requirements for the LRV as currently envisioned. The Army plans for the LRV to be fielded in IBCT Cavalry Squadrons and Infantry Battalion Scout Platoons.

MPF

In October 2016 the Army began its Analysis of Alternatives for MPF candidates.[21] MPF would also be a modified Non-Developmental Item (NDI) platform.[22] The Engineering Manufacturing Development (EMD) phase is planned to begin in FY2019 and last through FY2022, with an anticipated Milestone C—beginning of Production and Deployment—by FY2022. Reports

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[15] Department of Defense FY2018 Budget Estimates, Justification Book of Other Procurement, Army Tactical and Support Vehicles, Budget Activity 1, May 2017, p. 14.

[16] Ibid and Jen Judson, "Big Delays Hit Army Ground Mobility Vehicle Buy," *Defense News*, June 12, 2017.

[17] Information in this section is from Jen Judson, "Big Delays Hit Army Ground Mobility Vehicle Buy," *Defense News*, June 12, 2017.

[18] Department of Defense FY2018 Budget Estimates, Justification Book of Other Procurement, Army Tactical and Support Vehicles, Budget Activity 1, May 2017; and Jen Judson, "Big Delays Hit Army Ground Mobility Vehicle Buy," *Defense News*, June 12, 2017.

[19] For additional information on the JLTV, see CRS Report RS22942, *Joint Light Tactical Vehicle (JLTV): Background and Issues for Congress*, by Andrew Feickert.

[20] Courtney Mc Bride, "Officials: JLTV to Fill Role of Light Recon Vehicle 'for the Foreseeable Future'," *Inside Defense*, March 16, 2016.

[21] Connie Lee, "MPF Cleared to Begin Analysis of Alternatives," *Inside Defense*, October 28, 2016.

[22] Information in this section is taken from Department of Defense FY2018 Budget Estimates, Justification Book of Research, Development, Test & Evaluation, Army RDT&E – Volume II, Budget Activity 5A, May 2017, p. 153.

suggested the Army had a requirement for about 500 MPF vehicles with an average unit manufacturing cost of $6 million to $7 million per vehicle, which suggests a total program cost of approximately $3 billion to $3.5 billion.[23] The Marine Corps is reportedly monitoring MPF development for possible use in its Marine tank battalions, which could raise the overall MPF procurement to around 600 vehicles.[24]

On November 17, 2017, the Army released a request for proposal (RFP) for MPF.[25] The RFP reportedly notes the Army wishes to procure 504 MPF vehicles at a unit manufacturing cost target of $6.4 million per vehicle.[26] Reportedly, the Army plans to award two EMD contracts no later than 2019, with initial prototypes expected within 14 months of a contract award.[27]

Budgetary Considerations

FY2019 Budget Request

GMV

The FY2019 Army GMV budget request for $46.988 million in procurement funding supports the procurement of 133 GMVs.[28] The FY2019 GMV Research, Development, Test & Evaluation (RDT&E) request is for $2.865 million to support operational testing.[29]

LRV

The FY2019 Army LRV budget request is for $5.347 million in RDT&E funding for contractor test support, safety, performance, reliability, and ballistic testing and program management support.[30] From a programmatic perspective, the Army refers to its interim LRV solution as the Joint Light Tactical Vehicle-Reconnaissance Vehicle (JLTV-RV).

MPF

The FY2019 Army MPF budget request for $393.613 million in RDT&E funding supports the awarding of two EMD contracts in FY2019.[31]

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[23] Jason Sherman, "Army Set to Consider Formal Launch of Mobile Protected Firepower Acquisition," *Inside Defense*, October 14, 2016.

[24] Josh Cohen, "Mobile Protected Firepower Bridges Infantry Brigade Combat Teams Direct Fire Capability Gap," *The National Interest*, August 8, 2017.

[25] Ashley Givens, "Army Releases Request for Proposal for Mobile Protected Firepower," *Army.mil*, November 17, 2017.

[26]Information in this section is taken from Courtney McBride, "Army Issues Request for Proposals for Mobile Protected Firepower," *InsideDefense.com*, November 22, 2017.

[27] Kris Osborn, "Army Plans Prototype New Light Tank Mobile Protected Firepower Vehicle," *Fox News*, September 7, 2019.

[28] Department of Defense FY2019 Budget Estimates, Justification Book of Other Procurement, Army Tactical and Support Vehicles, Budget Activity 1, February 2018, p. 32.

[29] Department of Defense FY2019 Budget Estimates, Justification Book of Research, Development, Test & Evaluation, Army RDT&E – Volume II, Budget Activity 5A, February 2018, p. 240.

[30] Ibid., pp. 234-241.

[31] Ibid., p. 245.

FY2019 National Defense Authorization Act (H.R. 5515)

GMV

Congress recommended fully funding the Army's FY 2019 GMV RDT&E budget request.[32] Congress recommended decreasing the FY2019 GMV Procurement budget request by $4.293 million, citing "unobligated balances."[33]

LRV

Congress recommended fully funding the Army's FY2019 LRV RDT&E budget request.[34]

MPF

Congress recommended decreasing the Army's FY2019 MPF RDT&E budget request by $75 million.[35] In addition, Section 251 requires a briefing on the MPF program:

> SEC. 251. BRIEFINGS ON MOBILE PROTECTED FIREPOWER AND FUTURE
>
> VERTICAL LIFT PROGRAMS.
>
> (a) IN GENERAL.—Not later than March 1, 2019, the Secretary of the Army shall provide a briefing to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives on the requirements of the Army for Mobile Protected Firepower (MPF) and Future Vertical Lift (FVL).
>
> (b) CONTENTS.—The briefing provided pursuant to subsection (a) shall include the following:
>
> (1) With respect to the Mobile Protected Firepower program, the following:
>
> (A) An explanation of how Mobile Protected Firepower could survive against the effects of anti-armor and anti-aircraft networks established within anti-access, area-denial defenses.
>
> (B) An explanation of how Mobile Protected Firepower would improve offensive overmatch against a peer adversary.
>
> (C) Details regarding the total number of Mobile Protected Firepower systems needed by the Army.
>
> (D) An explanation of how the Mobile Protected Firepower system will be logistically supported within light formations.
>
> (E) Plans to integrate active protection systems into the designs of the Mobile Protected Firepower program.[36]

[32] Joint Explanatory Statement to H.R. 5515, July 20, 2018, p. 67.

[33] Conference Report 115-874 to Accompany H.R. 5515, John S. McCain National Defense Authorization Act for Fiscal Year 2019, July 25, 2018, p. 698.

[34] Joint Explanatory Statement to H.R. 5515, July 20, 2018, p. 67.

[35] Conference Report 115-874 to Accompany H.R. 5515, John S. McCain National Defense Authorization Act for Fiscal Year 2019, July 25, 2018, p. 724.

[36] Ibid., p. 69.

Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 (H.R. 6157)[37]

GMV

Congress recommended decreasing the Army's FY2019 GMV RDT&E budget request by $2.705 million, citing "excess GMV test funding."[38] Congress recommended fully funding the FY2019 GMV Procurement budget request.[39]

LRV

Congress recommended decreasing the Army's FY2019 LRV RDT&E budget request by $4.229 million, citing "JLTV-RV test funding ahead of need."[40]

MPF

Congress recommended decreasing the Army's FY2019 MPF RDT&E budget request by $19.813 million, citing "excess growth."[41]

Potential Issues for Congress

DOD Mobility Capabilities and Requirements Study and IBCT Deployability

On March 8, 2018, DOD reportedly launched its Mobility Capabilities and Requirements Study 18 (MCRS-18), which is intended to inform the Future Years Defense Plan (FYDP) covering FY2020-FY2024.[42] In addition to estimating the number of airlift aircraft and sealift ships needed to meet combatant commander requirements, past iterations of Mobility Capabilities and Requirements Studies have also provided valuable insight and planning considerations related to the deployability of Army forces. As part of MCRS-18 analysis, it is assumed that IBCT strategic mobility will be modeled and include allocated numbers of GMV, LRV, and MPF systems. If these systems are included, how will this affect the deployability of IBCTs? Would the addition of these vehicles increase the numbers of Air Force transport aircraft needed to transport the IBCT and, if so, how many more aircraft (by type) would be needed to move the IBCT? With the addition of these vehicles, how much longer would it take to deploy an IBCT and how might this factor into Combatant Commander's operational and contingency plans? For Air Assault IBCTs, would additional Army aviation assets be required to accommodate these vehicles when conducting air assault operations? If so, would this requirement be included in future budgets? Finally, as the MCRS-18 analysis will also look at sealift, does the addition of GMVs, LRVs, and

[37] Conference Report 115-952 to Accompany H.R. 6157, Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019, And For Other Purposes, September 13, 2018.

[38] Ibid., p. 376.

[39] Ibid., p. 271.

[40] Ibid., p. 376.

[41] Ibid., p. 376.

[42] Jason Sherman, "DOD Launches New Mobility Capability and Requirements Study to Influence FY-20 POM," *InsideDefense.com*, March 15, 2018.

MPF systems to IBCTs have any resource implications for U.S. sealift ships and how might this affect IBCT deployability by sea?

Security Force Assistance Brigades (SFABs) and GMV, LRV, and MPF Requirements

As previously noted, in February 2017 the Army announced it would establish six Security Force Assistance Brigades (SFABs)—five in the Active Component and one in the Army National Guard (ARNG). While not combat brigades per se, the Army plans for SFABs to be expanded, if the need arises, into fully operational ABCTs or IBCTs capable of conducting major combat operations.

If the Army plans to expand some of its SFABs into IBCTs it could have an impact on the number of GMVs, LRVs, and MPF systems needed to fully equip these units. While these numbers would likely be modest, it might be of interest to Congress to know how many additional vehicles would be required. Since they would not be part of the SFAB's organic equipment and only needed in the event of Army expansion, how and when will these vehicles be procured and how will they be maintained so that they would be available when needed?

GMV, LRV, and MPF Fielding Plans

Apart from fielding GMV 1.1s to Airborne IBCTs, little is known about the Army's overall fielding plan for these vehicles. Would active IBCTs receive these vehicles first, followed by National Guard IBCTs, or would both components receive the vehicles concurrently? When would these vehicles begin arriving at units, and when is the overall fielding anticipated to conclude? Does the Army plan to field these vehicles to prepositioned stocks in addition to units? What are some of the challenges associated with fielding three different vehicles with different production and delivery dates?

Author Information

Andrew Feickert
Specialist in Military Ground Forces

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