

Thunderbolt Blast



The Official Newsletter of the United States Army Armor School

BG Chad C. Chalfont
55th Chief of Armor



At its best, our doctrine gives us ways to think about and explain how we fight. For sure, our doctrine is just a starting point: our manuals are never intended to limit the initiative, flexibility, and adaptation that is required to fight and win on the battlefield. Still, it's important from time to time to remind ourselves of the importance of reading, understanding, and talking with our teammates about doctrine.

I suppose that my own relationship with our doctrine has changed over the years. It might be that I had a preference to learn by doing versus reading a book to guide how I thought about training and fighting. It might be that I valued my training experiences and intuition over anything that I could read in a manual. And it might be that I found reading doctrine to be less interesting than reading something else or doing other things. I only offer you these thoughts to acknowledge that this kind of thinking could be out there in the force. Maybe yes, maybe no.

Over time, I've come to value our doctrine more and more for three reasons. First, our doctrine is usually the best starting point if you want to learn something new, see how to do a task or operation, or review something that you think you already know. Doctrine is authoritative – it will be more correct than something you might find on the internet. Second, our doctrine can serve as a useful reference point as we talk about and teach each other about fighting. Our manuals provide a common language and a common set of ideas that can help us when we develop unit SOPs, conduct AARs, and bring on new teammates to our formations. Finally, our fighting manuals contain the tactics, techniques, and procedures that actually work in training and combat. In a sense, our doctrine reflects the lessons we have learned by combat in the past and then applies this to how we will train and fight today (and in the future). When it comes to fighting, certain things just work (for example, movement techniques like bounding overwatch). Doctrine lays all of this out for us, allows us to start with a baseline way of thinking and doing, and then postures us to fight with initiative and flexibility. Doctrine makes us ready to adapt (and try new things) in training and combat. To sum it up, doctrine – if we use it – can serve as our common azimuth to learn, to teach, and to train to fight and win.

We think the new tank platoon manual helps us do the kind of work described in the preceding paragraph. ATP 3-20.15, Tank Platoon, is a fighting manual that describes what the formation is (how it's organized), what the formation is for (it's fundamental purpose), and what the formation does

(how it fights). The following is a summary of the key changes and adaptations in the manual:

- **Armor Fundamentals:** a discrete list of tasks that allow you to fight effectively.
- **The Wingman Concept:** outlines the logic for why this is an effective fighting technique for mounted formations.
- **Close with and Destroy the Enemy:** descriptive language to describe how to fight.
- **Counter-UAS Tactics and Techniques:** ways that we can employ our current capabilities to defeat the UAS threat.
- **Electromagnetic Warfare:** ways we can employ our current capabilities to operate in a contested electromagnetic spectrum battlefield.
- **Platoon Battle Drills:** establishes an authoritative set of tank platoon battle drills that allow the platoon to survive first contact, develop the situation, and generate options for the commander.

Finally, I want to highlight that we will publish two manuals by Summer 2026: ATP 3-20.98, *Scout Platoon*, and ATP 3-20.96, *Cavalry Squadron*. Last published in 2019, the Scout Platoon manual will focus on describing how to fight in today's operational environment and the ways it operates with a cavalry troop and a combined arms battalion. Last published in 2016, the new Cavalry Squadron Manual will anchor on the formation's role to inform the main body, protect the main body, and fight for the main body. We're excited about both of these manuals.

We appreciate all that you do to drive readiness and develop leaders across the Armor Force. If there's anything the Armor School can do to support you, just holler.

Forge the Thunderbolt!



General Frederick M. Franks Jr. Writing Competition Award



Submission Window
1 January - 31 March 2026

The General Frederick M. Franks Jr. Writing Competition Award is given annually to a program participant who submits the manuscript that best addresses the topic selected by the Commandant, U.S. Army Armor School (USAARMS). The competition will evaluate and recognize outstanding writers from across the force who demonstrate clarity and vision about the future of the mounted force through clear and concise writing.

The topics for the 2026 General Frederick M. Franks Jr. Writing Competition Award are:

- **How does the company/brigade/battery Executive Officer fight and enable the fight (before, during, and after the mission)?**
- **What are the optimal roles/responsibilities for the Executive Officer?**
- **How does this change in the future as the Army transforms?**

The nomination/submission window for this award is January - March 2026, with the winner being announced during the Armor Week events in May and official recognition during the Maneuver Warfighter Conference to be held in September 2026 at Fort Benning, GA. Submit nominations no later than **31 March 2026** to the Office of Chief of Armor, ATZK-AR, 1 Karker Street, Fort Benning, GA. 31905-4500 or via email at: usarmy.benning.mcoe.mbx.armor-ocoa.army.mil.

The competition is open to active or reserve component officers, warrant officers, noncommissioned officers, and Department of the Army civilians, regardless of branch or occupational speciality.

Nomination packets for Soldiers must include the STP and an 8x10 military photo (quality JPEG); for civilians, a one page summary of government service and an 8x10 photo (civilian attire with coat and tie).

Packets will be evaluated by the Armor School Deputy Commandant with the recommendation forwarded to the Armor Commandant for review and final approval.

For additional information contact the Office of the Chief of Armor coordinator at (706) 626-8265, usarmy.benning.mcoe.mbx.armor-ocoa@army.mil



19C: What to Expect From OSUT Graduates



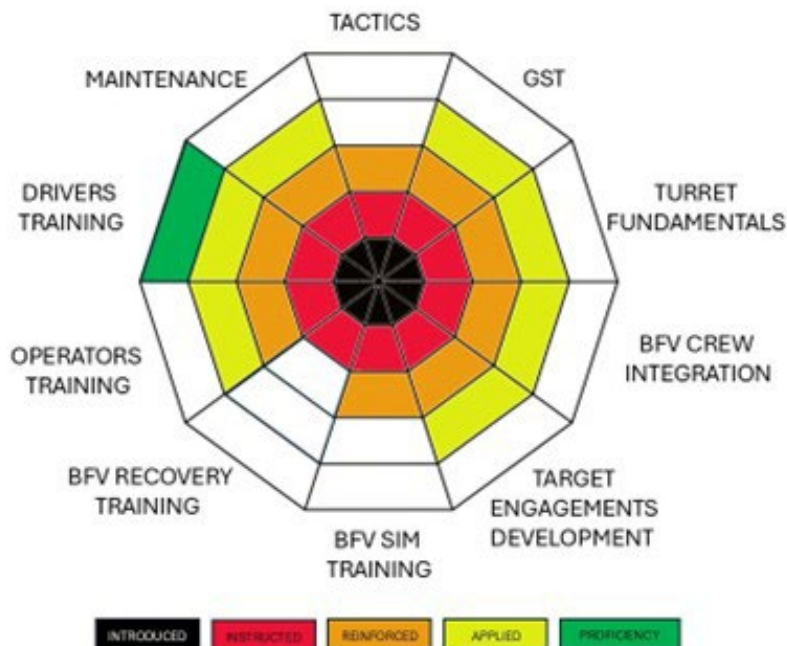
It is almost two years since the introduction of the 19C Bradley Crewmember into the ranks of the 19 series career management field (CMF). The initial framework and program of instruction (POI) for the 19C One Station Unit Training (OSUT) centered on producing licensed drivers for the Bradley Fighting Vehicle (BFV) platform, but with the recent rebalancing of the Individual Critical Task List (ICTL) and feedback from units through the Armor Training Standardization Initiative (ATSI) Council, our POI is evolving to meet the demands of the operational force with a more holistic crewmember approach (Figure 1). So, what should you expect of 19C OSUT graduates? Increased competency and confidence as both a driver and maintainer of the BFV and a higher-level understanding of employment of lethal fires from the platform

from increased exposure to turret systems.

Drive: The foundation of a 19C Crewmember remains driver centric. While licensing on the platform persists as our baseline, trainees will execute additional repetitions of the night advanced driver's course across varied terrain, further building their skills in a more demanding environment. The field training exercises (FTX) lanes now develop a tactical scenario that requires more tactical maneuvering from the driver from formation changes to navigation of difficult terrain. While the drivers are tested on 10-level tasks the broader tactical context of the lanes introduces them to such concepts as their role in forward and rearward passage of lines (FPOL/RPOL) operations and operating in a breach lane. The increased repetitions, both instructional and tactical, help to build more proficient BFV drivers

Figure 1. 19C OSUT Bradley Crewman Competency Distribution

19C OSUT BRADLEY CREWMAN COMPETENCY DISTRIBUTION



194th Armored Brigade

with a greater understanding of how their platform operates on the battlefield.

Maintain: A pivotal role of a BFV crewmember is maintaining their platform, a role where the 19C is relied upon heavily. Through feedback from the operational force, we have introduced and reinforced breaking track and recovery tasks, via tow cables. Soldiers are now trained and evaluated in these tasks in the classroom, motor pool, and field environments, gaining multiple repetitions of these difficult tasks before arriving at their first unit. Reinforcing the ATSI Daily Dozen, we have increased the iterations of preventative maintenance checks and services (PMCS) of both the BFV and radios and introduced turret PMCS operations. Currently each trainee must pass a PMCS exam, conducted in a field environment, before graduation. With the establishment of the Maintenance Skills Test (MST), the team will be looking to incorporate the event when appropriate.

Fight: This is the category with the greatest adjustments. Where the other two categories

achieve proficiency by graduation, here we are increasing the familiarity with turret operations and employment of the 240C and m242 as operational demands place many of the new Soldiers in the gunner's position. Previous iterations of the POI included a Gunnery Skills Test (GST) train up followed by a 25-round live fire training event. We are now instructing turret fundamentals, crew reaction drills, an intro to BFV Gunnery and bore-sighting a BFV. The live fire engagement is now a defensive engagement with multiple targets allowing for employment of both the 240C and M242.

In closing, the 19C military occupational specialty (MOS) was introduced to increase lethality and ensure platform expertise on the BFV. But success as a 19C Bradley crewmember relies on creating a foundation that is more than just driver's training, which is what sets the 19C OSUT POI apart from other MOS that operate the BFV. 19C OSUT, through its focus on driving, maintaining, and employing fires, is building the base upon which expertise is built.

Figure 2. One Station Unit Training trainees with Copperhead Troop, 2nd Squadron, 15th Cavalry Regiment, 194th Armored Brigade participate in the Thunder Run at Harmony Church, June 26, 2025. (U.S. Army photo by Capt. Stephanie Snyder)





sUAS Integration Experiment Using the M2A3 BFV



This article presents the findings from a series of experiments conducted to assess the viability and operational effectiveness of deploying a Small Unmanned Aerial System (sUAS) in conjunction with the M2A3 Bradley Fighting Vehicle. Key performance metrics such as launch and recovery times, connectivity range, and preferred deployment methods were evaluated under various conditions. The results provide critical insights for future integration of sUAS platforms into armored mechanized units for reconnaissance and battlefield awareness.

The integration of sUAS platforms with armored fighting vehicles presents new tactical advantages for mechanized forces. This study explored the use of a DJI Mavic 3 sUAS deployed from various points on an M2A3 Bradley, examined both stationary and maneuvering, while maintaining limited-range flight conditions while staying within a designated restricted operating zone (ROZ). Experiments were conducted with the sUAS fully prepped for immediate launch, including completed pre-flight inspections. All tests were conducted with line of sight (LOS) maintained between the drone and the operator, in compliance with operational constraints.

Deployment and Retrieval from Stationary M2A3

The sUAS was launched from the M2A3 while it was stationary, with the TOW hatch closed and the ramp sealed. Under these conditions, the sUAS maintained a stable connection throughout the experiment. The maximum allowed flight distance was 200 meters within the ROZ, and the

sUAS reached a maximum height of 115 meters. Launch and recovery were both successful from the TOW hatch. Launch time from this hatch was recorded at 22 seconds, while recovery took 12 seconds. These times assume the drone was already powered on and staged for deployment.

Deployment and Retrieval while Moving

The sUAS was launched while the M2A3 was maneuvering at a speed of 7 MPH. Launch from the platform was successful and our findings were consistent with the M2A3 being stationary. Additionally, sUAS may be launched at higher speeds not to exceed 35 MPH. Retrieval while moving is feasible and was successfully recovered while the vehicle was moving at a speed of 6 MPH, demonstrating capability under slow advance conditions however, duplicating the action proved to be a difficult task. The risk of injury to personnel or equipment would make retrieval while moving less practical unless in an emergency.

An alternative operational consideration includes handing the sUAS from the drone operator to the Bradley Commander (BC) for launch. While this streamlines the deployment, recovery remains complex and would require further training and repetition between the operator and the BC.

Launch and Recovery Options (Stationary)

Multiple launch and recovery configurations were assessed:

- TOW Hatch: While successful, it presented moderate setup time. Launching from the TOW hatch is viable but slower compared to

other methods.

- **Turret:** Significantly quicker launches were achieved when the drone operator, seated within the turret, raised the drone overhead for deployment. This method is preferred for rapid response scenarios.
- **Troop Door:** Launching from the troop door was effective, and drone recovery was also possible, though more challenging depending on the surrounding environment. An example of when to use this method would be while established on a screen maintaining a low silhouette.

Range Test and Signal Integrity

A separate stationary range test indicated that the sUAS could maintain a connection up to 1500 meters with two to three signal bars remaining. However, the drone began to lose signal when reaching 125 meters above ground level (AGL), emphasizing the importance of maintaining LOS. The drone was successfully recovered while the vehicle was moving at a speed of 6 MPH, demonstrating capability under slow advance conditions.

To ensure a clean retrieval, crew members must wear strong durable gloves to protect their finger from injury by the sUAS, especially during retrieval while in motion. Additionally, developing a net to help with quick retrieval would eliminate the need to slow down reducing the operator or crew members' involvement streamlining the process.

The experiment demonstrated that a sUAS, particularly the DJI Mavic 3, can be launched and retrieved in various configurations on a M2A3 BFV depending on which tactical environment presented itself. If scouts are maneuvering during a route reconnaissance, the drone could be launched from the top of the turret to provide an extra set of eyes up the route for early warning, also clearing the surrounding terrain that is associated with the route. If scouts are stationary, established in a screen, the drone can be launched out the troop door in the back to maintain a low silhouette never compromising the BFVs location. The operator can fly from the hull staying behind cover while providing the mounted crewman with

situation awareness of dead space within their sector.

The integration of sUAS operations with the M2A3 Bradley Fighting Vehicle is both feasible and operationally beneficial. Among the tested configurations, launching from the turret while stationary or moving offers the most rapid deployment, whereas the TOW hatch and troop door present viable alternatives while stationary with varying degrees of complexity and response time. These findings provide a framework for tactical use and further development of sUAS standard operating procedures within armored units.

Launching sUAS while moving

Operator was able to pass the sUAS up to the Bradley Commander through the turret door. The sUAS was then launched from the BC side by holding the drone overhead as shown.

This method proved to be the easiest and quickest. sUAS was prepped by the Operator and ready to launch before passing to the Bradley Commander.

The sUAS was launched while the M2A3 was maneuvering at a speed of 7 MPH. Launch from the platform was successful and could be launched at higher speeds if applicable. This method would be recommended when enemy contact is not likely.

Recovering sUAS while moving

Retrieval while moving is feasible and the sUAS was successfully recovered while the vehicle was moving at a speed of 6 MPH, demonstrating capability under slow advance conditions. However, during the experiment, we found higher speeds resulted in a sharp increase in difficulty retrieving the sUAS without harming personnel or equipment. The risk of injury to personnel or equipment would make retrieval while moving at moderate to high speeds less practical unless in an emergency.

Top Images: These images show a Bradley Commander launching a sUAS while traveling in a moving vehicle.



Bottom Images: These images show a Bradley Commander recovering a sUAS while traveling in a moving vehicle.

Transformation and Lessons Learned Manager - Armor: Reorganization Updates

Supporting the activation of the Transformation and Training Command (T2COM), The Army Capability Manger ABCT and Reconnaissance (ACM ABCT & Recon) was transformed, 1 OCT 2025, into the Transformation Lessons Learned Manager Armor (TLLM-AR.) TLLM-AR is one division within the newly formed Maneuver Transformation Integration Directorate (MTID) which is subordinate to the Maneuver Center of Excellence (MCoE). Other divisions within the MTID include; TLLM Infantry (transformed from ACM IBCT and ACM SBCT), Director of Training and Doctrine (DOTD), and the Force Management Office (FMO).

TLLM-AR Mission

TLLM-AR is the Army's user (operational force) representative for all matters across DOTMLPF-P. We are the single point of contact for users to provide feedback and issues for action with respect to the Armor BCTs or capability areas.

End state: ABCT formations that defeat any adversary on any battlefield.

We are organized into three branches:

Formation Design Integration Branch (Organization/Personnel)

Integrate, implement, and refine DOTMLPF-P solutions for assigned formations focused upon integrating the organizational and personnel, validating and refining needs based on the operational environment identified by research and analysis, the war-fighting concept, persistent experimentation, lessons learned, and observations with an eye towards the next 0-7 years.

Formation Development Integration Branch (Doctrine/Training/Leadership & Education)

Integrate, implement, and refine full DOTMLPF-P solutions to mitigate capability gaps of assigned formations focused upon integrating professional military education, doctrinal publications, training, and leader development led by force modernization proponents with an eye towards the next 0-7 years.

Formation Material & Sustainment Integration Branch (Materiel/Facilities)

Integrate, implement, and refine DOTMLPF-P solutions for assigned formations focused upon integrating materiel, facilities, and management/care of equipment after a capability transitions to sustainment, and before the Army divests the capability.



Maneuver Futures Capability Directorate Reorganization Updates

The October 2025 creation of Training and Transformation Command (T2COM) was the result of a merger of two existing four-star commands: U.S. Army Training and Doctrine Command (TRADOC) and U.S. Army Futures Command (AFC). This consolidation has streamlined the Army's processes for force design, development, and generation under a single headquarters. This is part of a broader "Army Transformation Initiative" to create a leaner, more lethal force by reducing redundancies and eliminating unnecessary programs.

Two other foundational pillars of the U.S. Army's new structure, the Combined Arms Command (CAC) and the Futures and Concepts Command (FCC), are now major subordinate commands under T2COM. CAC is responsible for leader development, professional military education, collective training, and developing Army doctrine. It essentially prepares the Army and its leaders for war. FCC designs the future force by developing new concepts and defining requirements, which are then validated through experimentation. It works to provide the Army with a clear path to the future, looking 5 to 15 years ahead.

At Fort Benning, the former Maneuver Capabilities Development and Integration Directorate (MCDID) has transformed and is now the Maneuver Future Capability Directorate (MFCD), a direct subordinate of FCC. It continues to determine and develop future force capabilities and requirements for infantry, armor, and robotics across various domains (Doctrine, Organization, Training, Materiel, Leadership Development, Personnel, and Facilities - DOTMLPF-P), ensuring a trained and ready maneuver force for the Army.

MFCD is organized across three Branches:

Concepts: Writing the documents that describe how the future Army will operate under current or proposed force design.

Requirements: Identifying and documenting

capability gaps and defining what new equipment and systems the Army needs.

Experimentation: Planning and executing assessments and experiments to test new ideas and emerging technologies.

The organizations formerly known as Army Capability Managers (ACMs) for Armor, Infantry, and Stryker Brigades are now Transformation and Lessons Learned Managers (TLLMs). ACM IBCT merged with ACM SBCT to form TLLM Infantry, and ACM ABCT merged with ACM SFAB to form TLLM Armor. Their roles and responsibilities as fielded force integrators and Soldier user representatives have moved from the MFCD and are assigned to the new Maneuver Transformation and Integration Directorate (MTID) within Fort Benning's Directorate of Training, Transformation, and Doctrine (DOTTD).

Requests for more information can be forwarded to the MFCD Operations office.

The point of contact is Mr. Carl Johnson, carl.r.johnson32.civ@army.mil, MST 1-520-714-2255.

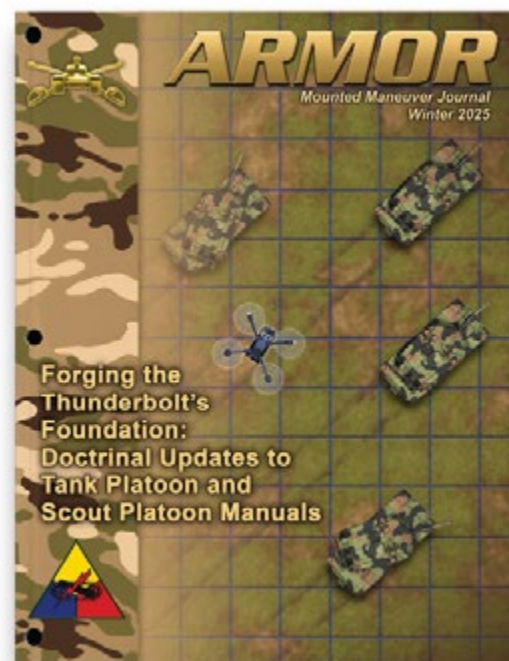
Learn more at <https://www.army.mil/FuturesandConceptsCommand>



The Winter 2025 Issue of *ARMOR* Magazine is available now!

Featuring the following articles:

- *Chief of Armor's Hatch* by BG Chad C. Chalfont
- *The Gunner's Seat* by CSM Ryan W. Roush
- *From the Boresight Line* by 1SG Michael D. Stephens
- *From the CTC* by COL Ian Lauer
- *Forging the Thunderbolt's Foundation* by LTC Mitchell Payne
- *MDMP and Risk* by MAJ Brett Barton
- *Armor in a Space Contested Environment* by MAJ Heidi Beemer
- *Fighting Autonomy with Autonomy* by MAJ James T. Casey
- *Training Battalions to Win in LSCO* by MAJ Chris Garlick, et al.
- *Mission Command Under Fire* by SGM Steve Gonzalez
- *Security Cooperation at the Tactical Level* by MAJ Miguel Moeyno, et al.
- *Support Operations in an ABCT* by MAJ John Paulson
- *Historic Armor Loses* by Bryan Powers
- *M242 Bushmaster* by SSG Matthew Price



HQ U.S. Army Armor School

Chief of Armor	(706) 545-2029	BG Chad C. Chalfont
Armor School CSM	(706) 545-8169	CSM Ryan W. Roush
Deputy Commandant	(706) 545-8334	COL Robert K. Furtick
Armor Branch Historian	(706) 626-1491	Dr. Robert Cameron
Director, Office of the Chief of Armor	(706) 545-1352	Mr. Richard Eggers
SGM, Office of the Chief of Armor	(706) 545-7725	MSG Ian C. Workman
Help Line, Office of the Chief of Armor	(706) 626-TANK	Mr. Alex Turkatte
<i>ARMOR</i> Magazine	(706) 545-9503	Mr. Robert Ositis

194th Armor Brigade

	Commander	Command Sergeant Major
194th AR BDE	COL Allan (Buck) Carroll	CSM Nicholas G. Garcia
30th AG (REC)	LTC Mercedes B. Skidmore	CSM Andrew Munoz
1-82 AR BN	LTC Gregory Hope	CSM Ken Pilkenton
2-15 CAV	LTC Nicolas Costello	CSM Avery Cunningham
5-15 CAV	LTC Scott T. Dawe	CSM Andrew Pitman

316th Cavalry Brigade

	Commander	Command Sergeant Major
316th CAV BDE	COL Justin D. Harper	CSM Jeffrey C. Davis
1-16 CAV	LTC Carl Danko	CSM Kevin G. Stewart
2-16 CAV	LTC Ryan Karasaw	CSM Christopher Belch
3-16 CAV	LTC Alan P. Hastings	CSM Tommy Snyder
MATA	LTC Greg Bascomb II	1SG Jaime Glass

Maneuver Futures Concept Directorate

	Director	Deputy Director
MFCD	BG Chad C. Chalfont	Mr. Marty Barr
Concepts Division	Mr. Chris Cassibry	
Requirements Division	LTC Josh Wiles	Mr. Dom Edwards
Maneuver Battle Lab	Mr. Chris Willis	Mr. Jon Lewis

Maneuver Transformation Integration Directorate

	Director	Deputy Director
MTID	COL Scott Shaw	Mr. Daniel S. Hurlbut
TLLM AR	COL Jason Wingart	Mr. Steve Pinette
TLLM IN	COL Shaun Conlin	Mr. Chris Stone
DOTD	COL Jerome Parker	Dr. Jay Brimstone
FMO	MAJ Patrick Nguyen	

- USAARMS: <https://www.benning.army.mil/Armor/>
- OCOA: <https://www.benning.army.mil/Armor/OCO>
- Armor Week: <https://www.benning.army.mil/Armor-Week/>
- HRC Armor Branch: <https://www.hrc.army.mil/contact/Armor%20Branch%POCs>
- ARMOR Magazine: <https://www.benning.army.mil/Armor/eARMOR/>