ADAPTING TOWED ARTILLERY OPERATIONS FOR THE MODERN BATTLEFIELD:

LESSONS FROM ASSASSIN BATTERY AT SABER JUNCTION 24

BY: CAPTAIN SCOTT MCKOWN, FIRST SERGEANT MICHAEL EVANS, SERGEANTS FIRST CLASS GEORGE DURAN & MICHAEL HOWARD

(PARATROOPERS FROM ASSASSIN BATTERY, 4-319TH AFAR, CONDUCT SLING LOAD OPERATIONS INTO SABER JUNCTION 24 IN HOHENFELS TRAINING AREA. ASSASSIN PARATROOPERS WERE SELECTED TO SUPPORT A MULTINATIONAL TASK FORCE FOR THE FIRST TWENTY-FOUR HOURS OF THE EXERCISE.)

(ELEMENTS OF 1ST PLATOON, ASSASSIN BATTERY FOLLOWING THE SUCCESSFUL COMPLETION OF THEIR TWO CANNON TABLE XII TRAINING EXERCISE. LED BY SFC MICHAEL HOWARD, 1ST PLATOON WAS RECOGNIZED ACROSS THE BATTALION FOR THEIR SMALL UNIT LEADERSHIP, INTEGRAL TO THE ACHERON CONCEPT.)

Towed artillery finds itself in a modernity crisis, and today's leaders must exercise disciplined initiative by deviating from established norms and doctrine to ensure both the survivability of their forces and effective support to maneuver counterparts.

Global conflicts evolve continuously, demanding adaption to modern battlefield realities. As the United States Field Artillery community transforms in contact, the stark need for modernization of our tactics, techniques, and procedures is clear. This article examines Assassin Battery's innovative three-platoon structure, its enhanced command and control framework, and key lessons learned during implementation in Saber Junction 24.

Background

In recent years, critics have asserted that towed artillery has reached the end of its useful life, chiefly due to long displacement times, aging equipment, and the increasing viability of alternative fire support methods. However, towed formations serve in over half of combat arms Brigade Combat Teams across the Army, with thousands of Artillerymen prepared to "fight tonight" with these systems. While these platforms remain without a planned replacement or update, it is crucial that artillery leaders at echelon

seek innovative ways to maximize effectiveness and combat doctrinal stagnation.

One need only examine the culture surrounding French Artillery leadership prior to WWI, where complacency, resistance to innovation, and blind confidence in outdated doctrine led to enormous battlefield losses and diminished fire support effects[1].

In the months preceding the 173rd IBCT(A)'s multinational CTC rotation, Saber Junction 24, Assassin Battery, 4th Battalion, 319th Airborne Field Artillery Regiment (4-319 AFAR) was fixated on a "Go to War" mindset. Early into 2024, Battery and Platoon Leadership brainstormed possible solutions to anticipated issues throughout the upcoming training year. Our concerns echoed: personnel shortages would strain cannon crews and security postures, large footprints would facilitate targeting for adversaries, and terrain would present communication challenges. Recognizing these limitations as inevitable, Assassin Battery leaders sought innovative solutions to ensure tactical success.

The Archeron Concept

The nearly year-long training plan that followed was named "Assassin Archeron," inspired by a Napoleonic-era story of a smaller ship outsmarting a stronger foe. This plan modified our Battery's traditional task organization from two platoons of three M119A3 howitzers, each controlled by a Platoon Fire Direction Center (FDC), to a three-platoon structure of two howitzers each, rotating through time, space, and responsibilities.

The rotational system operated as follows:

Each of the three platoons rotates on a six-hour shift, ensuring continuous firing capability while minimizing exposure. During the first six hours, the first platoon receives a fire mission, executes, then immediately displaces upon end of mission. The second platoon assumes primary responsibility for fire missions without any loss in firing capability, while the first platoon relocates to a new predetermined firing position. This cycle continues until the six-hour shift change, at which point all three platoons rotate in responsibility. The first platoon becomes the "cold gun", moving to a hide site for rest and reducing their exposure to enemy surveillance and targeting. The second platoon becomes the "hot gun", and the third platoon moves from their hide site to emplace and assume the

(ASSASSIN BATTERY PARATROOPERS CONDUCT A RAPID EMPLACEMENT DURING AN EARLY ITERATION OF ASSASSIN ACHERON. LATER ITERATIONS WOULD TEST VARYING METHODS CONFIGURING HOWITZER SECTION EQUIPMENT FOR OPTIMIZED SURVIVABILITY.)

role of “warm gun.” Subsequently, the second and third platoon will continue the same method of alternating fire mission until the next six-hour shift change, conducted in the same way.

The two FDCs rotate on a similar schedule, the key difference being the FDCs rotate every twelve hours. The “hot FDC” is in an advantageous position within the PAA, separated from the howitzer platoons, while the “cold FDC” is in the hide with the “cold gun.”

The hot FDC assumes all fire direction responsibilities during their shift, rotating at the twelve-hour shift change, or based on the command team’s discretion.

A work-rest cycle was inherently built into this shift-based system, ensuring personnel received actual planned rest, an element rarely integrated into sustained field artillery operations. Leadership immediately observed improved performance from crews returning from rest periods, a validation of this structured approach.

Enhanced Command & Control

The Battery Headquarters directed movement orders and maintained seamless communication across the formation using a mobile command post. Internal communication leveraged Tactical Scalable Mobile (TSM) waveform radios, creating a self-repeating network for uninterrupted connectivity across the entire position area for artillery (PAA). External to the Battery, PRC 158 radios and AFATDS operated over the Mobile User Objective System (MUOS) satellite waveform which provided long-range connectivity, allowing real-time coordination both stationary and on the move.

Windows Tactical Assault Kit (WinTAK) and Android Tactical Assault Kit (ATAK) End User Devices (EUDs) became critical assets for operational graphics, displaying battlefield information in an intuitive format. Leaders visualized gun positions, tracked unit movements, and instantly relayed movement orders. The combination of these systems enabled rapid transitions while maintaining shared situational awareness across the battery. Gunnery Sergeants continuously assessed terrain for any feasible and acceptable firing positions or hide sites. They immediately added these locations onto the TAK server allowing howitzer platoons to understand upcoming movement orders well in advance. Upon fire mission completion, the platoons displaced without further coordination, allowing for efficient movements that outpaced enemy counterfire.

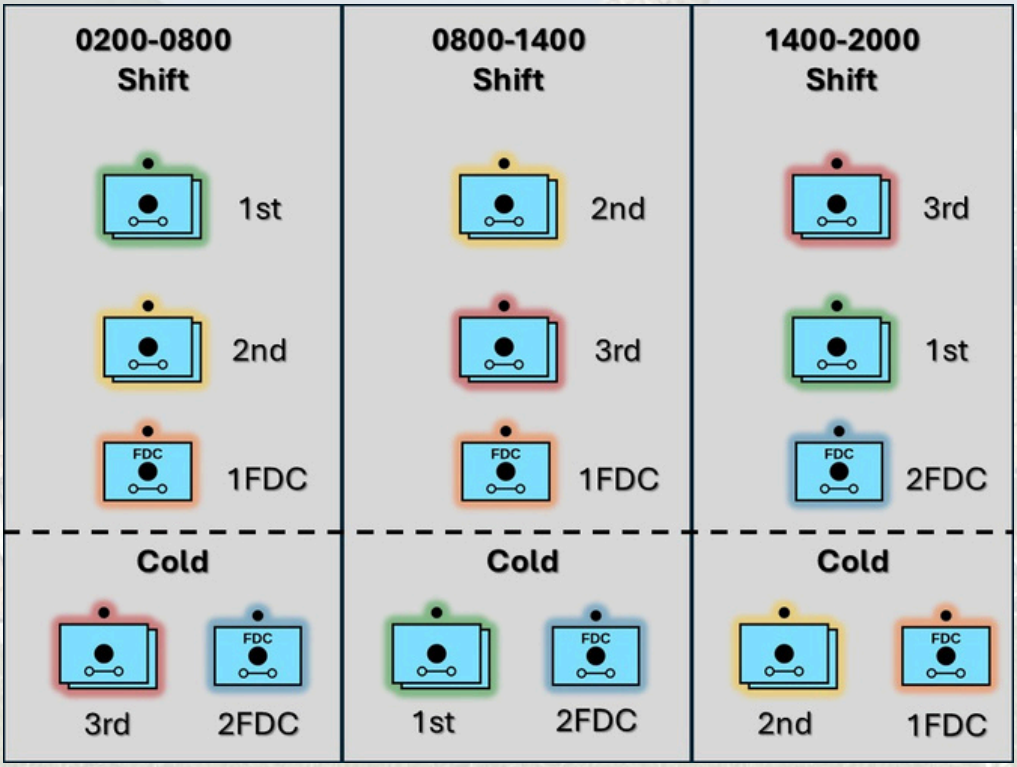
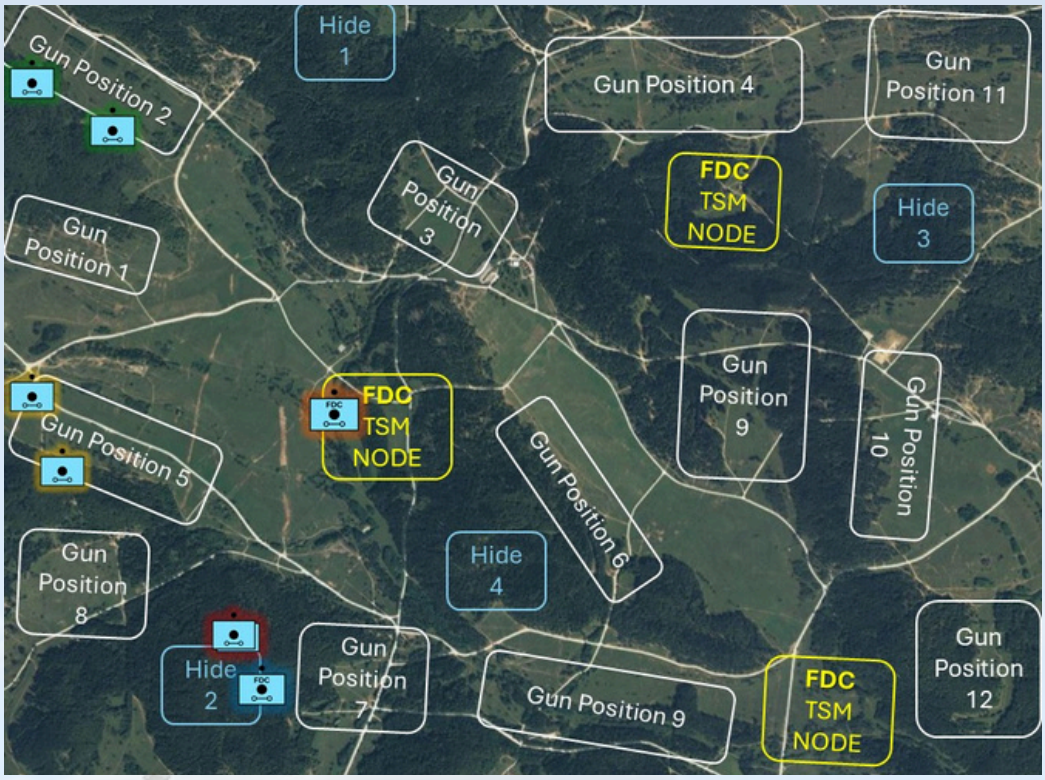


FIG. 1 - EXAMPLE OF PLATOON ROTATION (PHOTO FROM AUTHORS)

Battery leadership also proactively placed TSM repeating stations forward, so the howitzer platoons would emplace with a preexisting communications network. TSM, MUOS, and TAK served as significant force multipliers, streamlining decision-making and tactical coordination amid independent small-unit maneuvering.



(A REPLICATION OF GRAPHICS THAT LEADERS UTILIZED TO IDENTIFY USABLE TERRAIN AND DIRECTED SUBSEQUENT MOVE ORDERS TO ASSASSIN BATTERY ELEMENTS VIA THE TAK SYSTEM.)

Lessons Learned

The Acheron model proved effective in the JMRC environment. For the first three days of rotation, the Battery received no effective counterfire, a testament to the agility and unpredictability of our movements. With a shared understanding of the battle plan, platoon leadership were entrusted to execute movements while applying the principles of mission command to the greatest extent possible. Battery leadership also deliberately accepted risk to enhance crew survivability when appropriate. As fire mission density increased, leaders implemented controlled blitz displacements, while the alternate platoon would assume responsibility for subsequent rounds, ensuring survivability during extended engagements.

To further streamline displacement procedures, crews left the “sled”–the digital computing and communication equipment–mounted on the howitzer and towed it in “A-Frame”, eliminating the need to remove the tire and rotate the cannon barrel during occupation. On multiple occasions, the Command Team observed a platoon fire and displace, only to see an OC/T minutes later move to their previous position and fire an artillery simulator, replicating indirect fire.

By pairing howitzers in teams of two and employing a randomized firing and maneuvering pattern, enemy forces struggled to locate and target them effectively.

Due to the brief duration a howitzer remained in position, platoons could employ unconventional firing points, engaging targets from any location feasible for occupation. Additionally, because two-gun elements are not a doctrinal targeting echelon, the enemy was less inclined to allocate counterfire resources against them. Despite their smaller footprint, they effectively replicated a conventional three-gun platoon, maximizing firepower while reducing detection risk. Our OC/T teams informed Battery leadership later that the opposing forces could not discern our cannons’ location or how they were maneuvering during the initial days of the rotation.

However, because of the limitations of the training area, our PAA was bounded on all sides by the training area borders or adjacent friendly units. Multiple days firing and displacing within this area kept our specific location difficult to predict, but over time, the enemy recognized high fire mission density within the 2x2 kilometer PAA, increasing targeting risk and subsequent counterfire. Future iterations should maximize maneuverability, reducing predictability and exposure. While this seems inconvenient to other owners of the battlespace, it will drastically reduce the risk to force for the Brigade's fire delivery platforms.

(AN UNANTICIPATED OUTPUT OF THE ACHERON CONCEPT WAS THE MOBILE VARIABLE HEIGHT ANTENNA. THE COMBINATION OF A SMALL POWER GENERATION SOURCE AND A VARIABLE HEIGHT ANTENNA MOUNTED IN A MODIFIED M1097 HMMWV ALLOWS THE RAPID DEPLOYMENT, MOVEMENT, AND EXPANSION OF COMMUNICATIONS FOR UNITS UTILIZING THE TSM WAVEFORM. THIS CONCEPT WAS VALIDATED FOLLOWING SJ24 IN GRAFENWOEHR, GERMANY.)

Notably, a chief concern prior to the rotation was crew fatigue. However, nearly year-long training in the two-gun model mitigated concerns over displacement frequency. Platoons provided their own security, utilizing MK-19 grenade launchers and M2A1 machine guns to minimize the number of security personnel. Junior Paratroopers and section chiefs exceeded crew endurance expectations, demonstrating pride in their ability to fire and maneuver faster than the enemy could counterfire. And due to the integrated rest plan, the battery gained a fresh platoon every six hours, ensuring realistic long term sustained operations.

Mid-rotation, a Mobile Variable Height Antenna (VHA) concept emerged after a howitzer element maneuvered outside of our established TSM mesh network. The Battery communications specialist surmised that a vehicle-mounted TSM repeater would extend network coverage, maintaining connectivity amid dynamic movements. Assassin successfully tested this concept following Saber Junction 24, utilizing small, vehicle mounted generators that allowed flexible deployment, ensuring connectivity with no occupation or tear down times.

Finally, the brigade-wide TAK servers relied on commercial wireless internet, which exposed the network and its users to enemy targeting. OC/T teams noted that enemy forces exploited this weakness, underscoring the risks of commercial networks in tactical environments.

This aligns with modern warefare trends, where cyber and warfare directly impact battlefield survivability. Future iterations should focus on operating TAK servers on the TSM network for security purposes.

Opposing Views

It is important to recognize that the Acheron concept was controversial during its implementation at JMRC. Some OC/Ts embraced the innovation, recognizing its relevance to modern combat survivability. Others were critical, citing deviations from doctrine and concerns about violating AWIFM-N principles. This mnemonic includes the concept that artillery should never be placed in reserve, yet some questioned whether the "cold gun" violated this guidance. Much of this resistance stemmed from ATP 3-09.50, The Field Artillery Cannon Battery (2016), a doctrinal reference developed before the widespread use of networked sensors, drones, and rapid-fire coordination. While the manual provides a structured foundation for battery operations, its legacy framework struggles to account for the realities of contemporary targeting cycles. However, Assassin Battery leadership assert that today's battlefields demand adaptation, even if it requires departing from legacy guidance to enhance survivability and operational flexibility. The current pace of battlefield transformation, even over the last three years, demands continuous doctrinal reassessment. The wars in Ukraine and Nagorno-Karabakh have demonstrated the vulnerability of static artillery positions and the necessity of decentralized fire control, networked sensors, and rapid displacement. These conflicts highlight the growing importance of survivability, mobility, and adaptive fire support in modern warfare.

Additional concerns were the perceived inability to mass fires. However, it's important to understand the Acheron concept is centered on flexibility and Commanders at echelon retain the ability to emplace all six howitzers if required. The integration of a deliberate "cold gun" is not limiting to a Commander; it is designed to reduce risk by increasing survivability while maintaining endurance for sustained operations.

Closing Thoughts

Assassin Battery's approach to Saber Junction 24 showcased innovative towed artillery survivability techniques and highlighted the necessity of modernizing traditional doctrine. The realities of modern warfare demand adaptability, digital integration, and decentralized operations. Lessons learned from this rotation provide a blueprint for evolving field artillery tactics, ensuring towed formations remain lethal, adaptable, and operationally effective in a rapidly changing battlespace.

Endnotes

1. Barbara W. Tuchman, The Guns of August (New York: Macmillan, 1962)

BACKGROUND PHOTO PROVIDED BY AUTHORS (PARATROOPERS FROM ASSASSIN BATTERY, 4-319TH AFAR, PLACE AN M119A3 HOWITZER INTO ACTION AFTER CONDUCTING THE FIRST NATO JOINT FORCIBLE ENTRY INTO SWEDEN FOLLOWING THEIR ACCESSION INTO THE ALLIANCE.)

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