Painting the Picture: Executing a Better Combined-Arms Rehearsal

by LTC Mitchell Payne

Why do we do rehearsals as an Army? Everyone knows (or has at least had it repeated to them multiple times) that the combined-arms rehearsal (CAR) is one of the most critically important events a unit will do before executing an operation.[1]

Some leaders might go so far as to say a half-done plan with a well-executed rehearsal will still allow mission success. But if we accept that rehearsals are important, it still bears asking the question, Why do we do them?

Our current doctrine asserts that we do rehearsals to identify friction points in the plan, facilitate internal coordination and help Soldiers build a lasting mental picture of the sequence of the events.[2] Others may see rehearsals as a venue to discuss contingencies with staff and leaders. All these reasons are critical aspects of a well-executed rehearsal, but they are secondary effects to a more primary function. Army units execute rehearsals to synchronize military efforts in purpose, space and time[3] to achieve a shared understanding of the commander's visualization between the staff and subordinate leaders.

If we accept this premise as the underlying reason why we conduct rehearsals, the next question logically follows: Do our current rehearsals synchronize efforts in purpose, space and time? Put another way, do we walk away from our rehearsals with a shared understanding of what everyone is doing (what, why) at a given time (when) and in a given space (where)?

Problem with rehearsals

In 2019, Netflix released a critically acclaimed television series based on the fantasy-novel series by Andrzej Sapkowski entitled ***The Witcher***. In the first season, arguably the most confusing aspect that generated negative feedback[4] was the season's timeline. The show's first season was not told sequentially – it had multiple storylines across multiple timelines that tied together in the final episode of that season.

Unfortunately, the main problem with the TV show – the multiple stories across multiple timelines – is the same fundamental problem with how we execute our rehearsals. This is partially because we have a gap in our doctrine. Our current doctrine on rehearsals promotes a format that inherently compartmentalizes staff functions and subordinate actions throughout the brief.[5] While this format certainly highlights the depth of knowledge of the individual briefer, the current CAR script construct does little to meet the ultimate purpose of the CAR: to synchronize efforts in purpose, space and time to achieve shared understanding.

This means while individuals may have a solid understanding of their part of the operation (the "what, where and why" of the operation), the disjointed nature of the current briefing format leads to a critical lack of understanding about the "when" of the operation. The fires lead might have a great understanding of the overall fires concept, but if he/she does not layer that in time with the rest of the operation, it becomes increasingly difficult to understand what fires is doing at a specific time to support the maneuver fight.

By its very nature, time is the one aspect that synchronizes everything because everything we do happens in time. Without a solid synchronization of the operation in time, we cannot achieve any degree of shared organizational understanding between staff and subordinates.[6] Among other things, this has two distinct implications.

First, if we do not rehearse and synchronize operations in time, it becomes immensely harder to anticipate or identify operational friction points. As an example, if one does not clearly state when the start-point time is during a rehearsal, we cannot see if the intelligence-collection (IC) assets are in place to shape the deeper fight at the right time. Another perspective is in the air-assault planning process where rehearsals are tied to a distinct "h-hour" sequence, to ensure that suppression of enemy air-defense fires, lift assets and ground forces are synchronized to mass elements of combat power at the decisive place and time.

Second, if we do not rehearse and synchronize operations in time, then we will lack an understanding of what the enemy forces are doing at that time. Most CAR scripts start with an intelligence representative briefing the enemy scheme of maneuver by phase. This tangibly means that in a good CAR, a G-2 or S-2 representative will walk onto the terrain model and lay down enemy icons on the map. Once that is briefed, the typical CAR script typically transitions to the other warfighting functions and subordinate units' briefings.

The problem with this construct, however, is that the enemy remains static as everyone else briefs their portion because the G-2 or S-2 has already finished their part of the CAR script. A static enemy cannot tell anyone else what the enemy is doing in time. This results in a myopic focus on each individual silo of excellence without an understanding of how friendly actions are affecting enemy actions. Furthermore, when the enemy remains static, commanders and leaders cannot gain an appreciation of enemy decision points and subsequent opportunities to exploit enemy decision points or friction points.

5 ways to improve CARs

If what we as an Army are doing for rehearsals does not allow us to meet the intent of the rehearsal, what can we do differently? Among other things, here are five discrete actions that organizations can take to improve their rehearsals.

1. Ditch the current script. If the current script does not help synchronize operations in time, get rid of it. The

current script typically focuses on each briefer briefing his/her aspect of the operation – telling in detail the "what, where and why" of their piece. Instead, rather than making time an afterthought, organizations should make it the first aspect in which we synchronize operations in the rehearsal. Doing this requires that we ditch the script – unit leaders must instead cognitively reframe how we look at rehearsals.

To our credit, our current doctrine supports the idea that a CAR should not be a rigidly scripted event but leave room for appropriate dialogue.[7] Unfortunately, the desire to not look foolish in front of your commander or your commander's commander means that many people prepare robotic scripts and shy away from a true dialogue between leaders at echelon. This means that people rely on scripts to look well-informed at the cost of actually synchronizing the operation across the organization.

2. Make it a story. Instead of relying on the previous way of doing rehearsals, Army leaders must make their rehearsals more like a story. At the most basic level, when telling a story, you start at the beginning and talk about what happens until you get to the end. The current script does not tell one story, it tells 15 different stories – one for each staff function and subordinate commander.

One way to make it more like a story is to functionally design your rehearsal away from a script and more toward a simulation. To do this, you must start with elements in place and then show (in time) the movement and actions of each element – both enemy and friendly – on the terrain model. As time progresses, this will help the collective group of staff leaders and subordinate commanders visualize how the enemy and friendly forces will move in the battlefield, which will better allow them to visualize the fight, identify enemy and friendly friction points, plan and think about contingencies during the rehearsal.

3. Embrace the matrix. To tell a better story, unit leaders must ditch the current script and adopt a new one. This does not mean that the staff must create a whole other script; whenever possible, units should rely on the work they have already done to work more efficiently.[8] In that spirit, planning staff may already have a document that synchronizes operations in time which they could use as a baseline rehearsal script: the synchronization matrix.

The synchronization matrix is a fighting product produced in the military decision-making process or the rapid decision-making synchronization process (RDSP) that organizes operations by unit, task and purpose across time.[9] When used as a rehearsal script, the synchronization matrix will by its very nature force the rehearsal to account for actions and time. Even at the highest levels, using the synchronization matrix as a rehearsal script makes use of an existent product that should have the appropriate amount of detail, aligned in time to facilitate the shared visualization of the operation.

Some may object to this, arguing that a well-done synchronization matrix is too detailed to facilitate an effective dialogue in the rehearsal. This is a valid point, and one may respond by being selective in the information that is briefed in the rehearsal. Alternatively, the use of multiple rehearsals in addition to the combined-arms rehearsal (for example, the fires/intel rehearsal or the sustainment rehearsal) may allow alternative venues to delve a little deeper into the specifics of the operation nested within the overall maneuver plan.

Table 1 offers an example CAR script using the synchronization matrix.

4. Look down and in. Regardless of the specific script organizations use, often units fail to understand the complexities of the operation and the necessary internal coordination to make the rehearsals more effective. For example, rarely do maneuver units discuss casualty levels or attrition of combat power as they discuss their associated tasks and purpose on the terrain model. However, those are the explicit data points that will highlight the potential friction points or commander decision points (DPs).[10] Furthermore, it is those very data points that will drive further staff coordination to provide the necessary sustainment support to promote operational endurance.[11]

Units executing rehearsals need to look down and in at themselves and the enemy. They need to understand the effects of their operations in time on the enemy, which will help them to identify enemy DPs and potential opportunities to exploit enemy friction points. Such examination will drive refinement to the IC and fires elements, which will further enable maneuver.

5. Look up and out. Simultaneously, well-executed unit rehearsals will also look up and out. As an essential aspect of our operations, units do not operate independently of each other, but within a larger framework that may include multidomain operations.[12] This requires organizations to not only look down and in (internally) but also up and out. No organization conducts operations in a vacuum; every action will affect the enemy and impact adjacent units, nested within the higher commander's intent. This applies as much at the platoon and squad levels as it does to the division and corps levels of warfare.

This further necessitates a time-driven approach to rehearsals, because (particularly at the division and corps levels) most of the multidomain assets they may request are inherently linked to time, whether it is the air-tasking order or various convergence windows for multidomain assets. Units that cannot articulate or rehearse their plan in time cannot understand when they will need more external assets – or, more importantly, when they will need to request those assets to receive them at the appropriate time. Without a shared understanding of the operation in time, units often are unable to receive the right asset at the right time for those assets to be of any use, leading to catastrophic loss of combat power and inability to accomplish their mission.

Distributed rehearsals

Another aspect worth mentioning related to improving rehearsals in the modern fight is the necessity to execute them in a distributed format. The realities of large-scale combat operations in today's environment require mobile command posts (CPs) simply to

Table 1. Example synchronization matrix for CAR script.		
Overview		
1	S-3	Area-of-operations orientation
2	S-2	Enemy commander's intent and initial enemy arrayal
3	S-3	Higher-commander's intent
4		Commander's intent
6 p.m. – Line of departure (LD)		
1	S-3	The time is now 6 p.m. The first elements of the division will be Phase Line (PL) Adam. The rest of maneuver forces remain in Tactical Assembly Area (TAA) Iron.
2	S-2	200th Mechanized Battalion begins movement from its TAA; 300th Armor Battalion (notional) and 400th Antitank Battalion remain in positions at enemy TAA. 100th Reconnaissance Squadron screens between PL Doug and PL Evan.
3	S-2 IC	IC begins at Named Areas of Interest (NAIs) 1 and 2.
7 p.m. – Saber Squadron forward-passage-of-lines (FPoL)		
1	S-2	200th Mech Battalion reaches PL Kevin. Initial support-by-fire begins observation on friendly forces in vicinity of (IVO) PL Bob. Enemy intelligence, surveillance and reconnaissance (ISR) special-purpose forces (enemy special-operations forces, notional) begins flying IVO PL Chuck.
2	Saber 6	Saber in vicinity PL Bob and conducing FPoL with 4th United Kingdom Brigade at PL Bob.
3	Mech 6	1st Battalion begins LD from TAA Iron.
4	Armor 6	2nd Battalion begins LD from TAA Iron.
8 p.m. – Movement to passage lanes		
1	S-2	200th Mech Battalion reaches PL Jim. 300th Tank Battalion reaches PL Kevin, continues movement south. 400th Antitank Battalion reaches PL Luke. Enemy ISR identifies Saber moving northeast of PL Chuck.
2	Saber	Conducts area recon east to identify enemy indirect fires (IDF) in NAI 1.
3	Mech 6	1st Battalion (Mech) continues movement north to passage lanes at PL Bob.
4	Armor 6	2nd Battalion (Armor) continues movement to passage lane at PL Bob.
5	Fire-support officer (FSO)	Close-air support (CAS) on-station, executing targets AB001 to destroy enemy IDF assets (Priority 1) and enemy movement-and-maneuver forces (Priority 2).
6	Stryker 6	3rd Battalion (Stryker) begins LD from TAA Iron.
9 p.m. – 1st Brigade FPoL/counter-reconnaissance fight		
1	S-3	Initial brigade forces reach probable line of contact (PLoC) with 100th Recon Squadron between PLs Chuck and Doug and begin receiving IDF.
2	S-2	100th Recon Squadron begins shooting IDF at Saber. 200th Mech Battalion reaches PL Hank. 300th Tank Battalion reaches PL Jim, 400th Antitank Battalion (notional) moves west between PL Kevin and PL Jim. 5th Fires Battalion moves west past PL Kevin.
3	Saber	Cav conducts counter-reconnaissance with 200th Antitank Brigade recon forces.
4	S-3	1st, 2nd and 3rd battalions execute FPoL with 4th United Kingdom K Brigade at PL Bob.
5	Thunder 6	Thunder at positioned area for artillery (PAA) 1, establish radars to detect enemy IDF assets between PL Evan and PL Frank.
6	FSO	CAS on-station, executing targets AB001 to destroy enemy IDF assets. Priority shifts to supporting Saber.
7	S-1 / medical operations (MEDOPS)	Assess Saber receives 10-percent casualties on Saber.

10 p.m. – Disruption-zone fight		
1	S-2	Loss of 1x troop and 1x battery causes 100th Recon to collapse. 200th Mech, 300th Tank and 400th Antitank Battalion reach PL Hank and begin to establish hasty defense.
2	Saber	Saber conducts area recon between PL Evan and PL Frank oriented on Objective Pats to identify enemy forces IVO Objective Pats.
3	Mech 6	1st Battalion attacks to destroy enemy on Objective Browns.
4	Armor 6	2nd Battalion attacks to destroy enemy of Objective Packers.
5	Thunder 6	Thunder in position at PAA 2, executes fires support to 1st Battalion (Priority 1) and 2nd Battalion (Priority 2).
6	FSO	CAS off-station. Next CAS window is midnight to 2 a.m.
7	S-1 / MEDOPS	Saber passes off casualties to 3rd Battalion (Stryker).
11 p.m. – Movement to attack Objective Pats		
1	S-3	Collapse of disruption zone allows 1st Brigade to move between PL Evan and PL Greg (PLoC).
2	S-2	Enemy on Objective Pats continues to build defensive positions; two obstacle belts emplaced in Objective Pats.
3	Saber	Saber conducts area recon between PL Frank and PL Greg oriented on Objective Pats to identify enemy forces IVO Objective Pats.
4	Mech 6	1st Battalion moves east to Attack Position Reds.
5	Armor 6	2nd Battalion moves east to Attack Position Jays.
6	Stryker 6	3rd Battalion moves east to Attack Position Braves.
7	Thunder 6	Thunder moves east to occupy PAA 3.
8	FSO	CAS off-station. Next CAS window is midnight to 2 a.m.
Midnight – Shaping Objective Pats		
1	S-3	1st Brigade arrayed in attack position along PL Greg.
2	S-2	Enemy on Objective Pats emplaces the third obstacle belt.
3	Saber	Saber conducts area recon along PL Greg oriented on Objective Pats to identify enemy forces IVO Objective Pats.
4	S-3	1st Battalion occupies Attack Position Reds, 2nd Battalion occupies Attack Position Jays, 3rd Battalion occupies Attack Position Braves.
5	Thunder 6	Thunder occupies PAA 3. Attacks to destroy enemy forces on Objective Pats. Primary observer is Saber.
6	FSO	CAS on-station, attacks to destroy IDF and M2 forces in AB002.
7	S-1 / MEDOPS	Assess Saber receives 10-percent casualties.
1 a.m. – Attack to seize Objective Pats		
1	S-3	After shaping is complete, 1st Brigade attacks to seize Objective Pats.
2	S-2	Estimate enemy forces on Objective Pats reduced to 60-percent strength due to Blue CAS and IDF. IC focus shifts to NAI 3 to identify reinforcements moving northwest.
3	Saber	Saber screens north along Objective Pats to protect 1st Brigade's northern flank.
4	Mech 6	1st Battalion conducts breach and attacks to seize Objective Broncos.
5	Armor 6	2nd Battalion conducts breach and attacks to seize Objective Jets.
6	Stryker 6	3rd Battalion attacks to fix enemy forces on Objective Jags.
7	Thunder 6	Thunder occupies PAA 4. Attacks to destroy enemy forces on Objective Pats. Primary observer is Saber.
8	FSO	CAS remains on-station, attacks to destroy IDF and M2 forces in AB002. Priority of support is 2nd, 1st and 3rd battalions.

Table 1 continued.

2 a.m. – Seize Objective Pats, establish hasty defense		
1	S-2	1st Brigade IC focus shifts to NAI 3 to identify counterattacking forces moving northwest to Objective Pats.
2	Saber	Saber screens north IVO PL Kevin to protect northern flank.
3	Stryker 6	3rd Battalion conducts breach and attacks to seize Objective Jags. On order establishes hasty defense along PL Jim.
4	Mech 6	1st Battalion establishes hasty defense along PL Jim.
5	Armor 6	2nd Battalion establishes hasty defense along PL Jim.
6	Thunder 6	Thunder occupies PAA 4 to support seizure of Objective Jags. On order moves to PAA 5 to support defense along PL Jim.
7	FSO	CAS goes off-station. Next CAS window is 5-7 a.m.
8	S-1 / MEDOPS	Assess 1st and 2nd Battalions receive 15-percent casualties. Role II co-located with brigade engineer battalion (BEB).
Friction points		
1		Loss of combat power in Saber in the counter-reconnaissance fight.
2		Inability of 3rd Battalion (Stryker) to fix enemy on Objective Jets.
Decision points		
DP1		Commit the reserve.
DP2		Adjust priority of support for fires and CAS.
DP3		Displace main command post.

Table 1 continued.

survive. As CPs become more and more distributed, however, they also start to mitigate their functionality. This tenuous balance requires a careful understanding of how to manage command-and-control responsibilities. Units therefore must be able to execute rehearsals in a distributed fashion. Two options may facilitate these distributed rehearsals.

First, at the division and higher level, many units have simulation-operations Functional Area (FA) 57 officers assigned to them. These officers have the training capability to build simulations that can help graphically depict the rehearsal as a simulation. This requires a degree of preparation on the unit's part as well as the appropriate simulation software to depict the operation this way.

Also, in a tactical environment, there

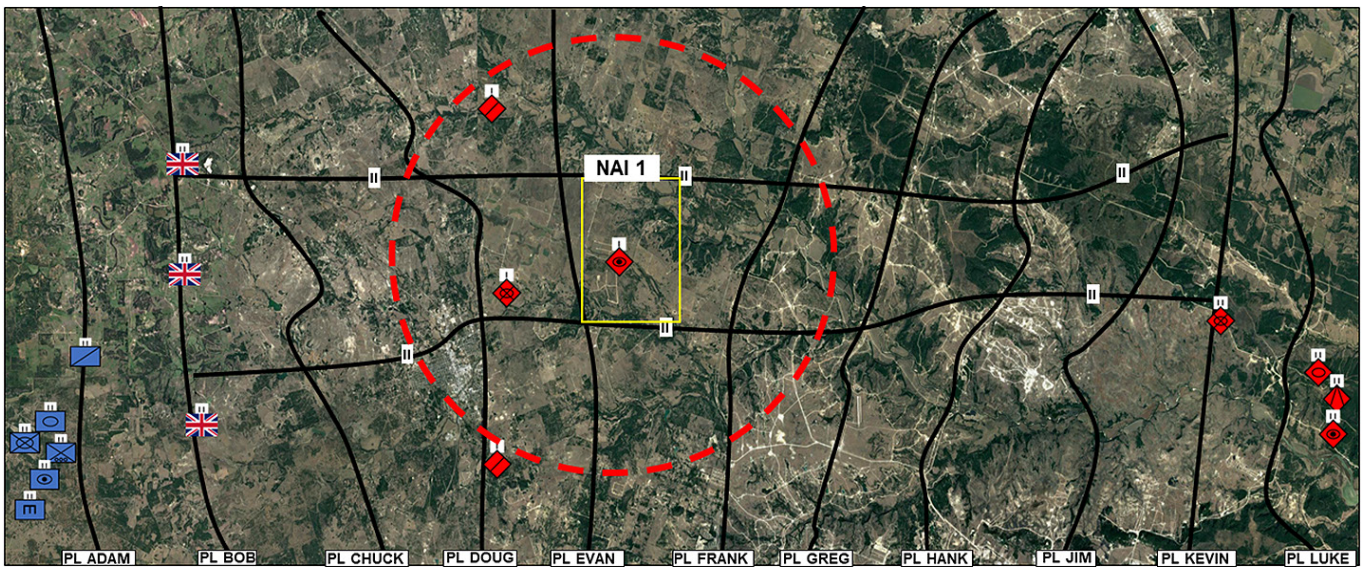

Figure 1. Graphic to establish line of departure. First graphic in a distributed CAR brief. *(Graphic by author)*

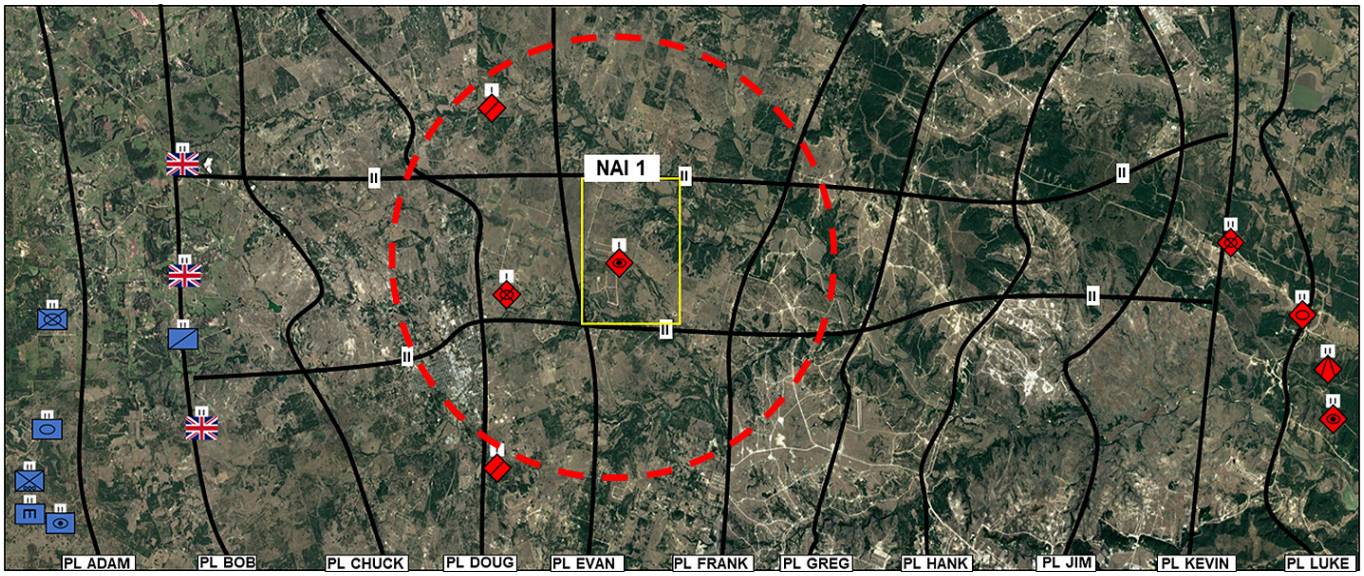

Figure 2. Saber Squadron forward-passage-of-lines. Second graphic in a distributed CAR brief. *(Graphic by author)*

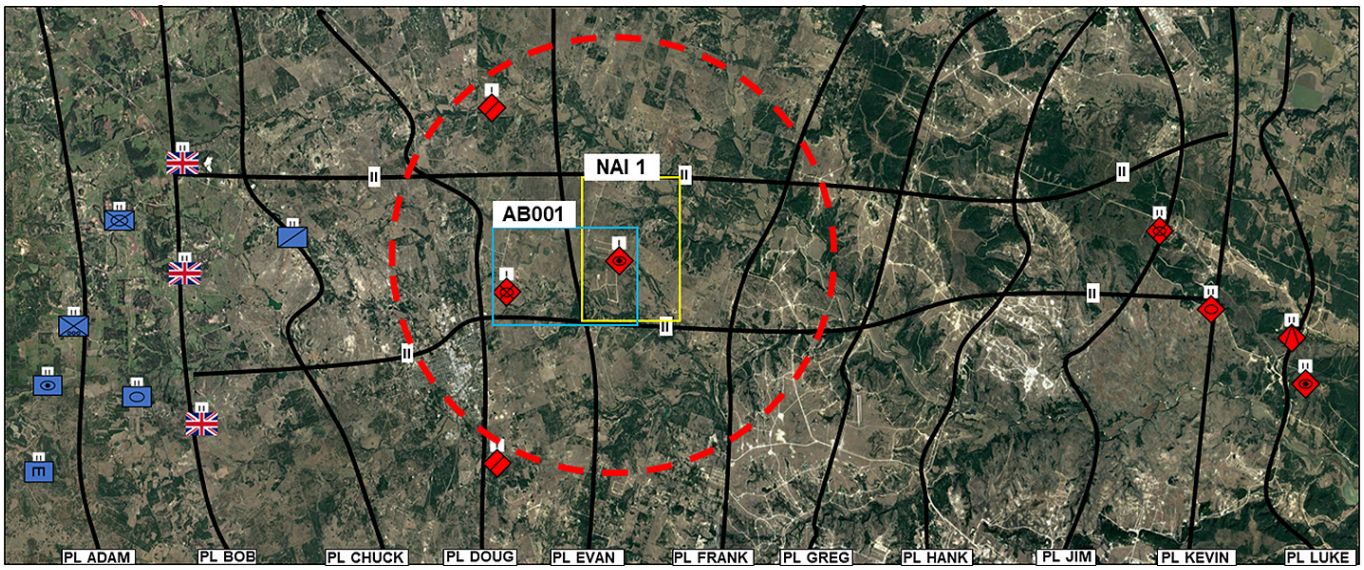

Figure 3. Movement of passage lanes. Third graphic in a distributed CAR brief. *(Graphic by author)*

may be bandwidth issues to consider with this option.

For units below the division level or those that do not have FA57 simulation officers organic to their formations, a second option is available. Conceivably, to support a rehearsal for a discrete combat operation, a unit may take a fixed hourly period and break it down into hourly increments. Planners can then take the operational graphics and show the movement of units and operations in time and space across the hourly slides. (Figures 1-8, a distributed CAR brief)

With the appropriate knowledge-management procedures, this rehearsal script could be posted where all parties can receive shared access and execute the rehearsal from their respective CP or command-and-control node. With minimal front material, a unit could post a brief at 30 slides for a distributed rehearsal and achieve a high degree of synchronization and shared understanding.

Conclusion

Despite the gaps in our current doctrine, one thing is certain: rehearsals are a critical component to successful mission accomplishment at every echelon. Many units, however, waste critical time by executing rehearsals in a desynchronized and silo-centric manner. This does nothing to add to the shared understanding of all Soldiers because it doesn't tie the operation together in time. Time is the most basic synchronizing function and therefore the most important aspect of successfully telling a coherent story.

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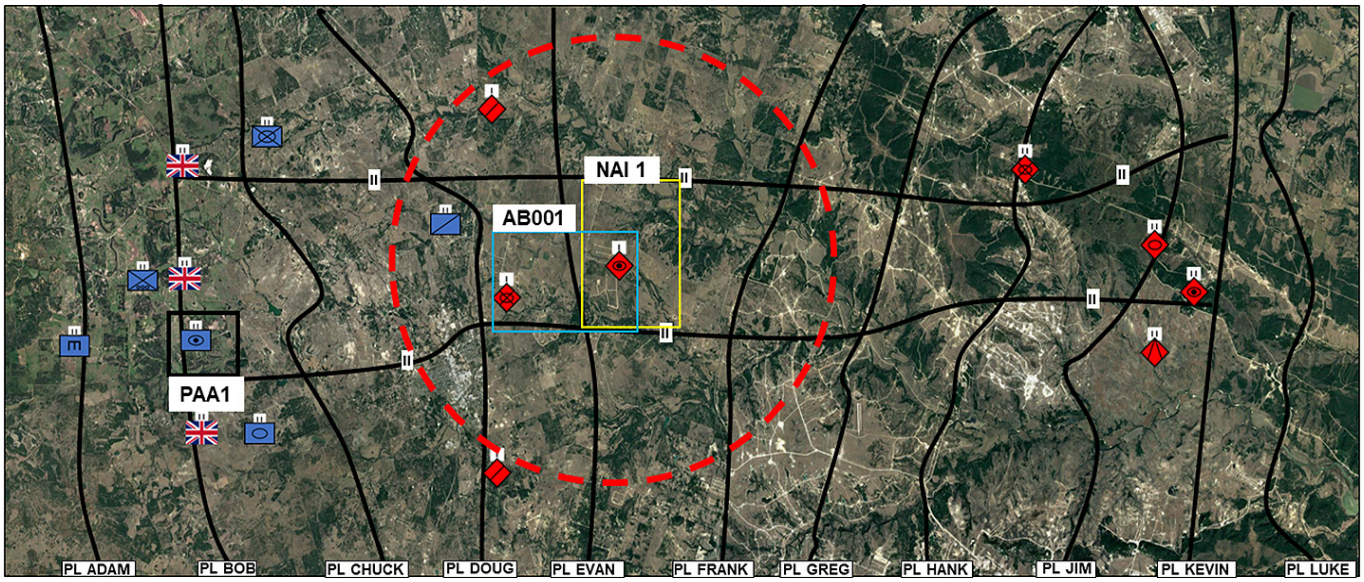

Figure 4. 1st Brigade FPoL/counter-reconnaissance fight. Next graphic in a distributed CAR brief. *(Graphic by author)*

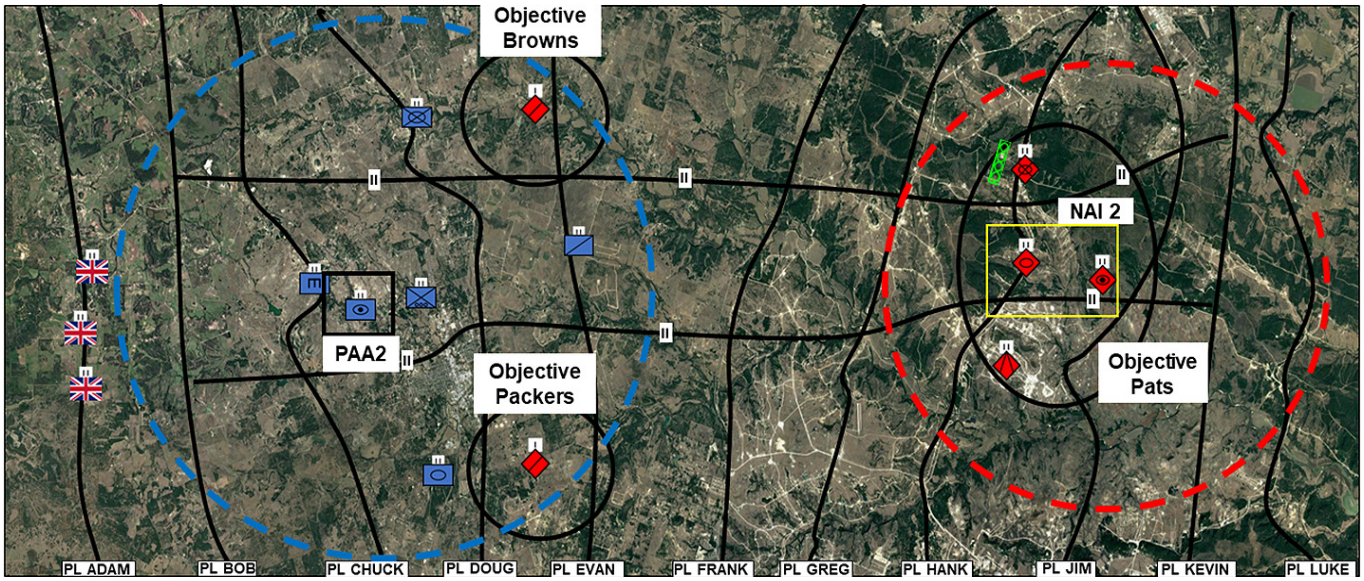

Figure 5. Disruption-zone fight. Fifth graphic in a distributed CAR brief. *(Graphic by author)*

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Notes

[1] Field Manual (FM) 6-0, ***Commander and Staff Organization and Operations***, May 2022.

[2] Ibid.

[3] FM 3-0, ***Operations***, October 2022.

[4] Tim Surette, "***The Witcher***'s Complicated Season 1 Timeline, Explained," ***TV Guide***; accessed on-line, Dec. 14, 2021, https://www.tvguide.com/news/the-witcher-season-1-timeline-netflix-when-are-things-happening-chronological-order/.

[5] FM 6-0.

[6] Joint Publication 2-0, ***Joint Intelligence***, defines synchronization as "the arrangement of military actions in time, space and purpose to produce maximum relative combat power at a decisive place and time," as cited in FM 3-0.

[7] FM 6-0.

[8] LTC Mitchell Payne, "RDSP in LSCO," Center for Army Lessons Learned, 2022.

[9] FM 5-0, ***Planning and Orders Production***.

[10] LTC Mitchell Payne and J. Watts, "Staff Facilitation of Commander Decision-Making," Center for Army Lessons-Learned (pending publication).

[11] FM 3-0.

[12] Ibid.

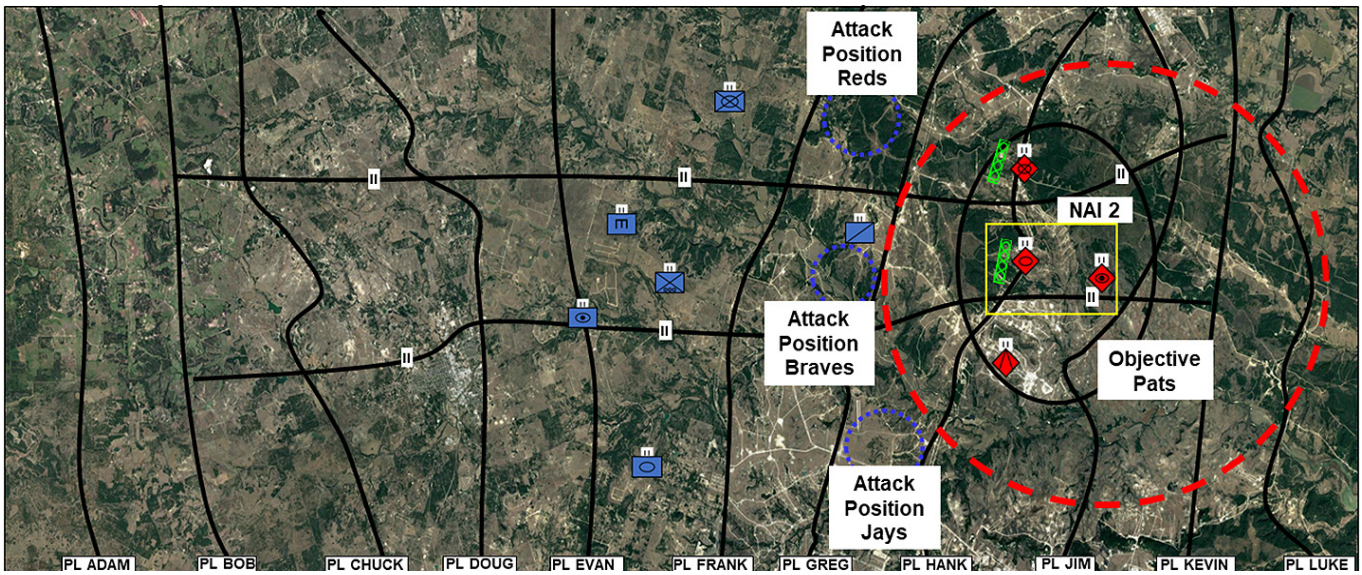

Figure 6. Movement to attack Objective Pats. Sixth graphic in a distributed CAR brief. *(Graphic by author)*

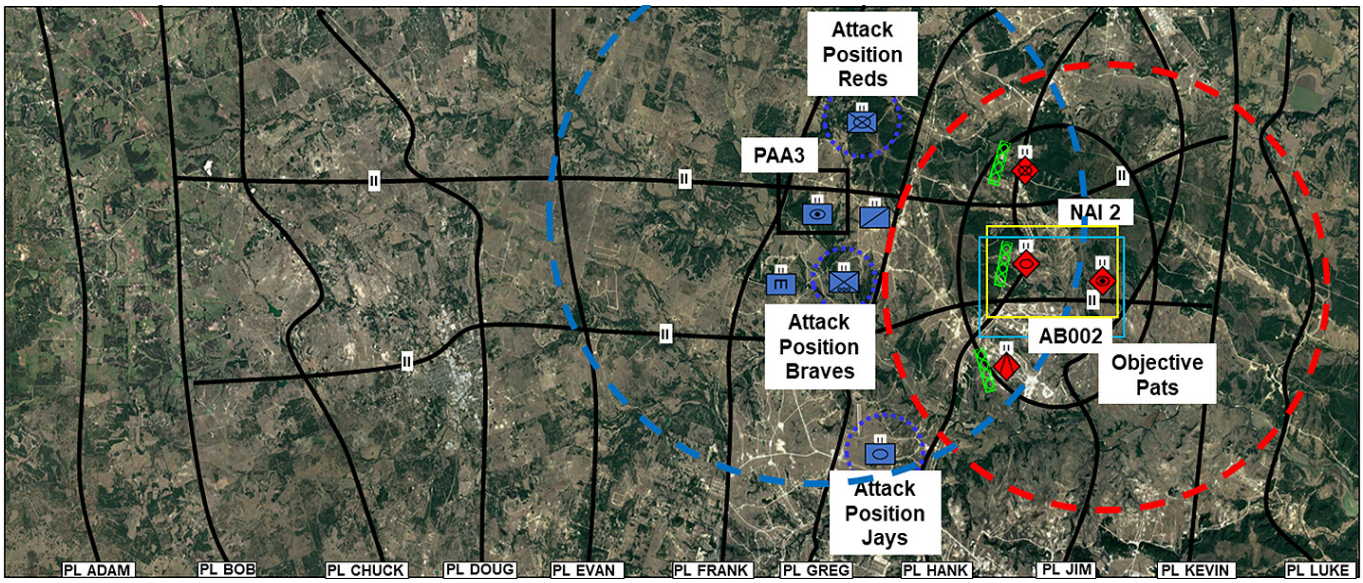

Figure 7. Shaping Objective Pats. Seventh graphic in a distributed CAR brief. *(Graphic by author)*

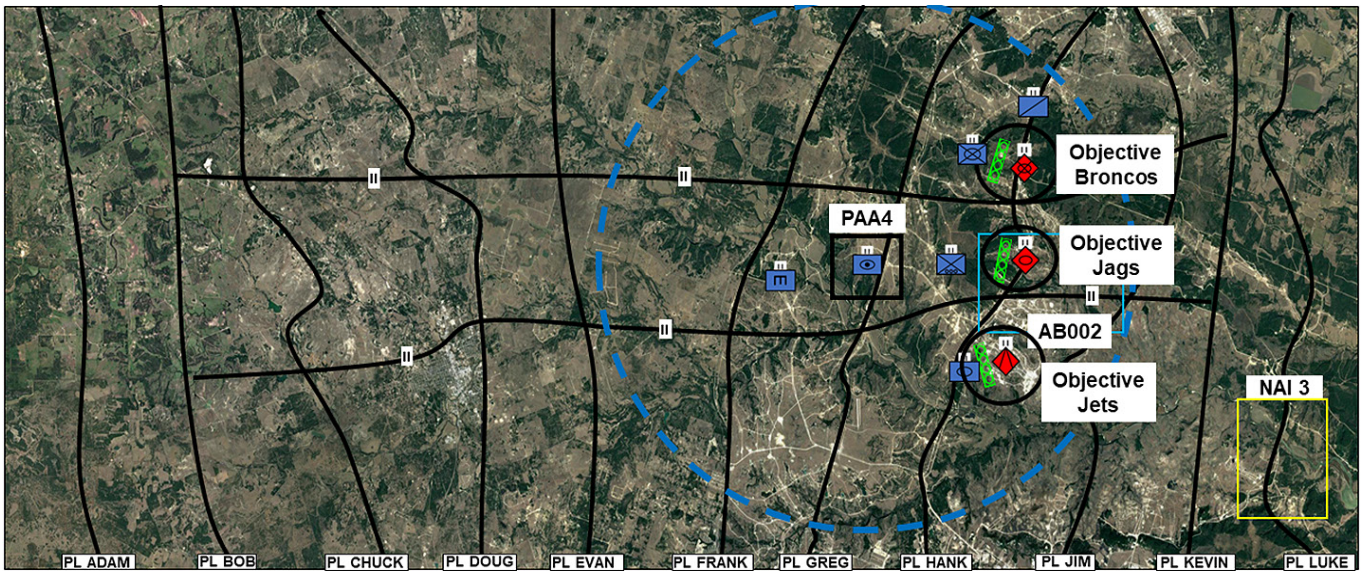

Figure 8. Attack to seize Objective Pats. Last graphic in a distributed CAR brief. *(Graphic by author)*

Acronym Quick-Scan

CAR – combined-arms rehearsal
CAS – close air support
CGSC – Command and General Staff College
CP – command post
DP – decision point
FA – functional area
FSO – fire-support officer
FPoL – forward passage of lines
IC – intelligence collection
IDF – indirect fires
ISR – intelligence, surveillance and reconnaissance
IVO – in vicinity of
LD – line of departure
MEDOPS – medical operations
NAI – named area of interest
PAA – positioned area for artillery
PL – phase line
PLoC – probable line of contact
RDSP – rapid decision-making synchronization process
TAA – tactical-assembly area