

Three Days in Pennsylvania

Optional Rules for GETTYSBURG '88

By Steven Mones

The battle of Gettysburg is unique in several respects. It was the largest battle of the war, and its ramifications included the demise of any offensive hopes for the Confederacy. Arguably, the Confederacy lost the battle and the war at Gettysburg.

This direct clash of two mighty armies is perfectly suited for wargaming. Indeed, Gettysburg has been the subject of five Avalon Hill games over the last 35 years. The present incarnation, *GETTYSBURG '88* (GBG), is a simple operational level game, with a tactical flavor, that can be completed easily in one sitting. The mapboard hexes represent approximately 700 yards, each turn represents two hours, and units represent infantry divisions, cavalry and artillery brigades, and individual generals.

GBG introduced a new and streamlined combat resolution system. Not only was the ubiquitous combat results table abandoned, but there are no charts or tables at all. Instead, those traditional game accouterments were replaced with a simple comparison of combat factors, modified by terrain effects, and randomized by decimal die rolls. This system works well at this level, and, in only slightly modified form, it was adapted to World War II combat in the later Smithsonian Institution series games.

Part of the beauty of GBG is that it is ideal both for beginners and experienced wargamers. Nearly everyone has at least heard of Gettysburg, and this familiarity may serve to draw in those newcomers who have either never heard of, or are intimidated by, the likes of Rommel and Montgomery. For novice wargamers, the game's attributes are manifest: the mapboard is small but uncluttered, the piece density is low, and the game can be played to completion in a couple of hours. The game mechanics are relatively transparent which permits players to concentrate on strategy and tactics rather than rules. All in all, the game represents a most harmonious balance of military detail and playability.

While the basic and advanced rules permit challenging play opportunities, more experienced gamers may desire additional historical detail in the form of optional rules. The adaptability of the game system is testament to the fundamental soundness and accuracy of the design. Several optional rules have already been presented in Volume 25, No. 3 of *THE GENERAL* and the following further options were designed to add variety and depth to the game without significantly altering the wonderful simplicity flow of play. Indeed, most of these options are simply logical extensions of existing rules, and none change the character of the game.

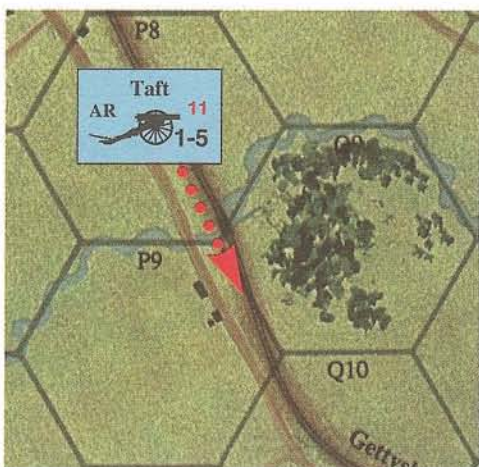
MOVEMENT AND COMBAT

Movement of units under the existing rules is straight-forward and logical, and the combat system is elegantly simple. However, the following additional rules add historical accuracy to the game without encumbering the fundamental principles of movement and combat.



Artillery units may cross streams only by roads or railways.

This rule prohibits artillery units from crossing stream hexes except by use of a road or railway. The streams depicted on the mapboard, (Willoughby Run in the west and Rock Creek in the east), are narrow and shallow, but they have relatively steep banks with heavy vegetation which obstructed movement of artillery units. Therefore, while infantry and cavalry units may cross streams anywhere with only a +1 movement factor penalty, artillery units may cross streams only by road or railway. This rule also applies to retreats after combat; artillery units may not retreat across a stream except by a road or railway. A consequence of this is that if an artillery unit loses a battle and has no path of

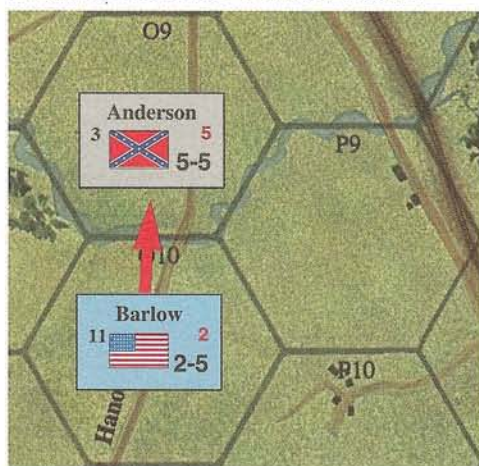


Taft's artillery has to cross the river by either road or rail.

retreat, it is eliminated. That may appear harsh, but it reflects the cold realities of moving heavy guns through difficult terrain.

Units attacking across a stream receive a -1 combat modifier.

As noted above, the streams depicted on the board were traversable by infantry and cavalry, but they would have impeded an orderly attack. Those persons familiar with the battlefield will note that the board does not depict many minor streams which did not have a significant impact on division level maneuvers. However, Willoughby Run and Rock Creek posed real, if not insurmountable, logistical problems during attacks. Therefore, each unit attacking across a stream hex receives a -1 combat modifier.



Units attacking across a stream.

Artillery units may not move and fire in same turn.

Perhaps the most significant of these movement options is that artillery units may not move and attack in the same turn. The rationale for this rule lies in the fundamental difference between artillery and infantry/cavalry tactics for units at this scale.

Under the existing basic game rules, artillery units act exactly like weak infantry units. Under the advanced game rules, artillery units are permitted to fire "long range" (two hexes), but only under limited circumstances. In all other respects, artillery units still perform like infantry units. In effect, artillery units are relegated primarily to use in "soak-off" attacks or to add just the right numerical value to an attack. Those tactics do not reflect the true role of artillery at Gettysburg or any other Civil War battle.

In reality, artillery tactics were vastly different from the tactics employed by other units. Infantry and cavalry attacks were essentially short range clashes or outright charges. The key was maneuver and assault at ranges of less than 400 yards. On the other hand, artillery generally was emplaced before firing and the ranges involved, offensively, were typically several hundred to over one thousand yards. Only on defense was artillery used at close range, and then, through the use of canister rounds, the

guns acted like deadly shotguns on attacking infantry. Due to their devastating defensive capability, artillery units were generally well protected and were never employed in the suicidal stratagems so prevalent in this game.

As a result, in game terms, the primary tactical distinction between infantry/cavalry and artillery is movement; it is essential for the former and minimal for the latter. To reflect this difference, a fundamental change is in order: artillery may not move and fire in the same turn.

A direct consequence of this change is that artillery units are no longer readily available for ahistorical "soak offs." Instead, strategic placement of artillery units becomes important because they can no longer be moved into action in one turn. Artillery placement and usage must be planned carefully, and one will often find that a successful attack leaves artillery units out of position in the rear where they cannot participate in breakthroughs. From a practical standpoint, one cannot rely on artillery as a constant source of offensive firepower. Instead, artillery units figure most prominently either on defense, or on offense where there is a particularly tough defensive nut to crack.

One possible criticism of this rule is that it ignores the fact that there are documented instances where guns were moved to the front for direct fire during assaults. Similarly, there were instances where guns were successfully withdrawn during an assault. However, those actions generally involved individual guns or, at most, isolated batteries. Given the scale of the artillery units in this game, such actions would not have been regular occurrences.

The artillery game pieces represent brigade size units. A Union artillery brigade normally comprised 4-5 batteries of six guns each for a total of about 24-30 guns, while a Confederate artillery brigade normally comprised about 4-6 batteries of four guns each for a total of about 16-24 guns.

One may wonder why the smaller Confederate artillery brigades generally have larger combat factors than their Union counterparts. The answer lies in the organization of the two armies. In the Union army, each corps had its own artillery brigade, but divisions had no specific artillery support. By contrast, not only did Confederate corps have their own artillery brigades, but Confederate infantry divisions had attached organic artillery units. In the game, each Confederate artillery unit represents an amalgamation of the named corps level unit with the division level artillery units. This accounts for Confederate artillery brigades having larger combat factors than Union artillery brigades despite the smaller number of guns of the actual named units.

[Avalon Hill's *GETTYSBURG '77* provides an excellent secondary source for numerical data on the artillery units in each army at Gettysburg. The Union forces had 368 guns in 14 brigades, while the Confederates had 277 guns in 16 brigades. Based on these figures and the number of artillery units in the game, each artillery combat factor in GBG represents approximately 23 guns for both sides.]

Thus, given this game scale, it's simply not realistic to expect artillery brigades to be able to

accompany infantry or cavalry into battle. Accordingly, artillery units may either move or attack during a turn.

Artillery may not fire from Gettysburg city hexes.

On a simpler note, artillery units may not fire from a Gettysburg city hex. This reflects the fact that artillery took considerable space to set up and the cramped city streets hindered effective use of the guns. Under prevailing artillery doctrine, a properly deployed battery spaced its six guns about 14 yards apart and occupied a front of 82 yards. Given the brigade scale of artillery units, there would not have been enough room to fully deploy artillery in the city streets. Therefore, artillery may move through city hexes, but may not fire from them.

If an artillery unit in the Gettysburg hex is attacked, it defends with a combat strength of 0. This may seem harsh, but it represents the fact that, without their guns, lightly armed artillery troops simply could not stand up to an attack by either an infantry division or even a cavalry brigade. It is, therefore, important to properly deploy artillery in the open country and to avoid being caught in Gettysburg inadvertently.

Units entering board in same hex must enter in column.

The rules are silent on the subject of the actual procedure for entry of units from off the board. As a result, many players probably give all entering units their full movement allowance counting the first hex as their first movement factor. In reality, Civil War era units moved by road exclusively in column formation which limited the ability of a unit to proceed faster than the unit(s) in front of them.

To simulate columns, units entering from a particular hex must be set up as if there were off-board hexes, and each unit expends extra movement factors to enter. For instance, the first unit in column would expend 1/2 movement factor to enter along a road or one movement factor for a clear hex, the next unit would expend one movement factor to enter along a road or two movement factors in a clear hex, and so on throughout the column. This simple change has a significant impact on the placement of units and their ability to arrive on the battlefield. As a result, the order of units within a column becomes important, just as it was at the time.

As an aside, it is recommended that the variant entry procedure proposed in Vol. 25, #5 of *THE GENERAL* by A. Martin and J. Brown in their "Intermediate Gettysburg" article be adopted with respect to units scheduled to enter in hexes within enemy zones of control. For those readers who do not have that issue, the following represents a summary of the proposed entry rules:

Where an entry hex contains an enemy unit or zone-of-control, an entering friendly unit may: (1) conduct immediate combat from off-board and advance on-board if successful; (2) enter an adjacent hex and conduct immediate combat; (3) enter the nearest non-zone of control hex and stop; or (4) delay entry.

The combination of the column rules and the above entry rules provides the flavor of different

unit formations without resorting to unit formation markers or other more complicated procedures.

Units may not use the road bonus within two hexes (inclusive) of enemy artillery.

Units within two hexes of artillery would be within range of interdicting fire from the guns, so they would move more cautiously and would avoid the normal column formation. In game terms, the zone-of-control radius for artillery is expanded to two hexes; hence, the road bonus does not apply to units moving within that radius.



Anderson's Division is two hexes from Wainwright's artillery. Anderson doesn't receive the road bonus while moving.

STACKING UNITS

Under Rule 2(e), two units may stack together provided a general is present. Advanced Rule 10(a) adds the requirement that units must be of the same corps as the general to stack. These rules should be abandoned and replaced with the following:

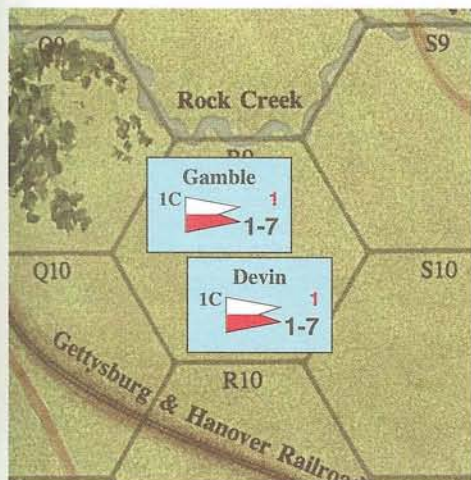
Any number of Generals can be stacked together (clarification).

As in the current rules, stacking of any number of general units with other units remains permissible. A general unit represents the named individual and his staff, so the number of personnel is a fraction of those in infantry, cavalry, and artillery units.

Under Advanced Rule 10(a)(2), a general only provides leadership benefits to those units in his own corps or brigade. That principle is not affected by stacking. Any number of generals may stack in one hex, but they may command only their own units.

Two Cavalry units (from the same corps/division) may stack together.

Cavalry units represent brigades, which are smaller than infantry divisions. Therefore, two cavalry units may stack together provided they are from the same corps or division. A general is not required for such stacking.



Cavalry units may stack together.

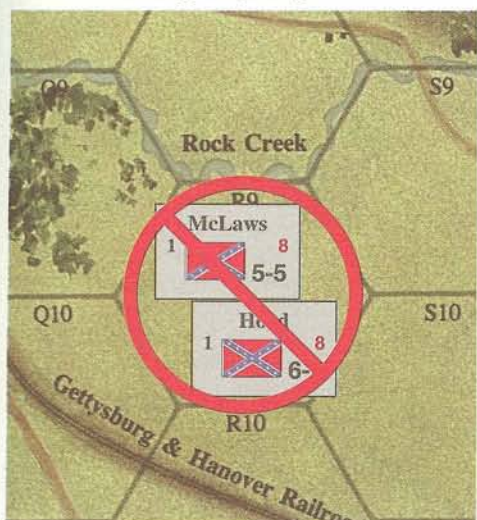
Infantry units may not be stacked together.

The present stacking rules encourage the creation of "killer stacks" of infantry divisions, particularly by the Confederate player, which are used in an ahistorical manner. This is not only a misuse of forces in a historical sense, but, given the division level of the infantry units, and the terrain scale of 700 yards per hex, the stacking of infantry divisions is not realistic.

Official doctrine of the time called for infantry regiments to occupy approximately 132 yards of space when in a standard battle line. The five regiments in an average brigade would, when spaced the standard 20 yards apart, occupy 740 yards. The average division, with three brigades, and 25 yards between them, would thereby occupy a front of 2,270 yards.

It is evident from these figures that two infantry divisions simply could not crowd into a 700 yard area and still be able to bring full firepower to bear. As a result, the stacking of infantry units should be prohibited.

A direct consequence of this policy is that battle lines tend to be longer and generally more reminiscent of the actual battle. "Killer stacks" no longer roam the battlefield looking for hapless victims. Thus, the no-stacking policy for infantry units is not only more realistic, but it painlessly forces players to adopt historical tactics without adding complexity.



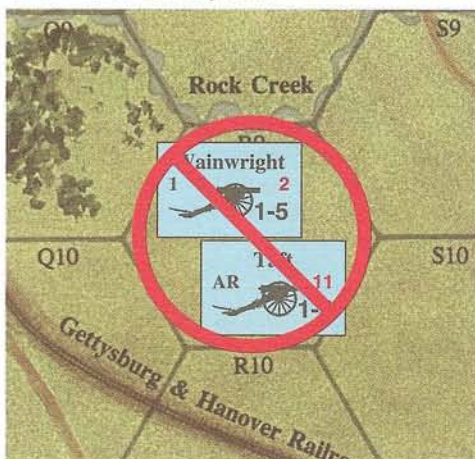
Infantry units may not stack.

Two or more artillery units may not stack together.

Artillery is a problem at this scale because one must balance physical realities with the tactics of the time. From a purely realistic view, one could easily fill a 700 yard hex with many more guns than the 16-30 in an artillery brigade. However, the tactics of the day did not call for such "stacking" of artillery.

As noted above, guns were generally kept about 14 yards apart. In addition, there was more to an artillery brigade than the guns themselves. Each battery had an attachment of nearly 100 officers and men, plus there were supply wagons and support units. Moreover, command and control were always difficult, and artillery tended to be used in small groups. There were instances where coordinated artillery bombardments occurred, but those were the exception rather than the rule. As a result, while it may be somewhat of a game mechanic, better simulation is achieved if two artillery units are not permitted to stack together.

On the other hand, one artillery unit may stack with one infantry unit, provided they are of the same corps. This was the normal arrangement and is in keeping with the scale of the game. The only exception to this rule is that Union reserve artillery units may stack freely with any infantry units. As with cavalry units, a general is not required for an infantry unit to stack with an artillery unit.



Wainwright's and Taff's artillery may not stack.

Units in column may not stack together.

To better simulate the movement of units in columns, the restrictions on stacking should be imposed along with the column entry rules discussed above. Therefore, units entering the map-board may not stack with any other units, other than generals, during movement. Stacking, if otherwise permissible, may occur only at the end of an entrance turn. This rule limits the ability of generals to move masses of troops and better recreates the "traffic jams" prevalent at the time.

LEADERSHIP

Under the present rules, generals provide only two benefits: a movement bonus of one movement factor and stacking of units of the same corps. As noted above, the requirement of the presence of a general for stacking has been abandoned. The movement bonus is a good rep-

resentation of the motivational effect of a general being present with a unit. However, the presence of a general was also felt in battle. Indeed—at least at the corps and division levels—generals were expected to be present at the front to provide leadership and inspiration, as well as to maintain some semblance of control, as their troops went into battle. As a result, the following combat modification system for generals is suggested.

Corps Commanders provide a +1 combat modification.

2 Corps	1 Corps
HANCOCK	LONGSTREET
10	10
5	5

This system is a derivative of one proposed in Vol. 25, No. 5 of *The GENERAL*. In his article, "They Led at Gettysburg", Thomas Boeche explored the issue of leadership at Gettysburg and he suggested a system of die roll modifiers for each general based on his effectiveness during the battle. Each general's historical performance was quantified on a scale of -1 (poor) to +2 (good).

That leadership system added a simple and interesting variation to the game, but it also resulted in some ahistorical play. In particular, it encouraged players to deliberately leave poor leaders out of battle to avoid the negative combat modifiers. That is an obvious game mechanic because corps leaders were regularly in the thick of battle and several were killed or wounded.

From a philosophical standpoint, the system also penalized the poor generals only in battle. By contrast, nearly all the commanders at Gettysburg, on both sides, displayed courage and leadership under fire even if they were not particularly astute military strategists. Indeed, most of the documented leadership blunders occurred not in battle, but rather in either the movement or deployment of troops. That is difficult to simulate in a game system, but the almost universally positive morale factor of a general's presence should be reflected in the combat procedure.

In an effort to encourage use of corps commanders, it is suggested that all corps commanders be given a +1 modification in battle. This system not only rewards units lead by generals, but it to some extent compensates for the absence of stacked units.

One potential problem with this uniform modification system is that the Union player has many more general units than the Confederate player (13 versus 5). In his variant system, Mr. Boeche cleverly designed the ratings so that both armies received the same total modifications. In effect, the Confederate player has fewer generals, but they have a greater average positive modifier than their Union counterparts.

On the surface, the system proposed here does not reflect that leadership balance explicitly. However, an empirical balance is struck by the nature of the combat units themselves. Union infantry units generally have lower combat values than Confederate infantry units, so Union generals stacked with them are more vulnerable to elimination than their Confederate counterparts. As a result, Union generals tend to become hors de combat more frequently than their Confederate counterparts. Playtesting indicates that this attrition process essentially bal-

ances leadership while still granting generals real usefulness in battle.

Generals Meade and Lee provide a +1 combat modifier to any one unit (or stack) within five hexes.

A. of the Potomac MEADE 10	8
A. of N. Virginia R. E. LEE 10	5

While division and corps leaders spent much of their time in or near the battles, such was not the case with the commanders of the two armies. Generals Meade and Lee undoubtedly provided leadership and inspiration to their forces, but those qualities were expressed indirectly rather than in actual combat.

To reflect this indirect leadership role, neither Meade nor Lee are required to accompany units into offensive combat to provide a leadership combat modifier. Instead, Generals Meade and Lee provide a +1 combat modifier to any one unit (or stack) engaged in offensive combat within a range of five hexes. The combat modifier for Meade and Lee is not cumulative with that of other generals; units receive a maximum of a +1 modification regardless of the number of leaders present. Under Mr. Boeche's system, Generals Longstreet and Hancock provide a +2 combat modifier. That is equivalent to the full combat strength of some Union divisions and probably exaggerates the inspirational values even of those fine leaders.

If Meade and Lee are intentionally or inadvertently placed in harms way, such as in a situation where they are stacked with units which are subjected to attack, they would apply their combat modifier directly. They also would, of course, be subject to elimination if their supporting units were destroyed. That is one more reason to keep Meade and Lee away from the front line and to find them a centralized (and safe) location where they can exert overall command.

ARTILLERY FIRE

The artillery rules in the present basic and advanced rules represent severe compromises for playability. The following changes are designed to increase the realism of artillery tactics without significantly affecting playability.

Long Range Artillery Fire

Under the existing advanced rules, artillery units are permitted to fire at long range (two hexes) only under two circumstances: (1) "counterbattery" fire against enemy artillery units; and (2) supporting defensive fire during attacks on nearby friendly units. These are rather severe limitations which distort the historical use of artillery batteries. More realistic use of artillery is accomplished by permitting artillery to fire offensively and defensively, at any units, at ranges up to two hexes.

Before setting forth the proposed long range artillery rules, one additional factor must be considered — line of sight. Before anyone panics, let me add that I do not intend to turn this game into "Advanced Brigade Leader." In this instance, line of sight is a simple and unambiguous concept: if the hex directly between the attacker and defender is a hill, woods, or city hex, or if it contains a friendly unit, then line of sight is blocked and long range fire is prohibited. This rule is consistent

with advanced rule 10(b)(1). Edges of hexes do not block line of sight.

There are no exceptions to this rule. For instance, there are no elevation effects to consider; an artillery unit on a hill cannot "see" over lower elevation woods. The only question in a particular situation is whether there is an intervening hill, woods, or city hex, or a friendly unit in such a hex; if the answer is "yes," then line of sight is blocked and the long range attack cannot be made.

Offensive Long Range Artillery may fire before the movement of friendly units. On offense, an artillery unit may fire at long range before the movement of friendly units. This simulates pre-attack bombardment which was a common tactic. Offensive long range artillery fire procedure is essentially the same as normal fire procedure except that:

1. The defender is permitted defensive modification for woods or city hexes only (open hill hexes provide no modification);
2. There is no punitive effect on the attacker if the attack is unsuccessful (the attack is one-sided);
3. For a combat resolution differential of less than 4, there is no effect while a differential of 5 or more causes a maximum of only one hit;
4. If the defending unit suffers a hit, retreat is voluntary.
5. Adjacent artillery units may either combine fire into a single attack or engage in individual attacks.

The exclusion of a defensive terrain modification because mere elevation did not provide any protection from artillery fire. The attacker is not penalized for an unsuccessful attack because artillery is a one-way attack; the defender gets his chance during his half of the turn. The voluntary retreat rule for defending units simulates the fact that such units may just dig in and wait out the attack. The low attack values of artillery units (one or two combat factors) means that few long range artillery attacks will have an effect on the target, even when multiple batteries fire on one hex. That is consistent with the historical results of artillery attacks.

The quintessential study of the effectiveness of long and short range artillery is provided by the famous artillery barrage which preceded "Pickett's Charge" on the third day of the Gettysburg battle. For over two hours, more than 130 Confederate guns and more than 80 Union guns bombarded their respective positions on Cemetery Ridge and Seminary Ridge. Both sides suffered casualties and temporary disruptions of communications, but neither side sustained any significant impairment of its military effectiveness. The bombardment proved to be more sound than fury. In the midst of shot and shell, the Union forces were able to execute a clever strategic move by withdrawing their guns to conserve ammunition for the anticipated Confederate charge. The Confederates misinterpreted this as indicating that the Union guns were out of ammunition. When the charge came, the Union guns were moved back into the line and they proceeded to devastate Pickett's division with close range canister fire. That action, perhaps more than any other, demonstrated the

relative impotence of long range artillery fire in comparison to short range fire.

Short Range Artillery Fire

Artillery fire at short range (one hex) is conducted exactly as in the basic game rules with only the following exceptions:

1. As noted above, an artillery unit may not move and fire in the same turn;
2. A unit on a hill fired on by only adjacent and/or long-range artillery units does not receive the hill defensive benefit;
3. Consistent with the no-movement policy for attacking artillery, a successful offensive artillery unit may not advance after combat.
4. At a range of one hex, the combat factors for artillery units are doubled, with any applicable terrain modification being added after the doubling.

The last option above, doubling the firepower of short range artillery, flows from the fact that artillery was most effective at close range. This is a slight modification of the rule proposed by Messrs. Marian and Brown, in their "Intermediate Gettysburg '88" article, where artillery are given a +2 modifier at close range. Promoting a 1-factor artillery unit to three combat factors may be excessive as it would then be stronger than many infantry divisions. On the other hand, doubling such a unit's firepower makes it comparable to a weak infantry division which is probably only a slight exaggeration. A 2-factor artillery unit becomes quite formidable which recreates the fact that a full strength artillery brigade could wreak havoc on infantry attacking at short range.

One additional rule for short range artillery that is not listed above would prohibit a lone defensive artillery unit from retreating if it lost a battle. Such a unit would be eliminated if the successful attacking unit advanced into its hex. The justification for this rule is that, in an offensive situation, it is presumed that no enemy units are attempting to enter the artillery unit's location, while in a defensive situation, the artillery unit is threatened directly and there would be little time to limber the guns and withdraw them to safety. This has a rather severe impact on artillery units given the fact that they represent full brigades. Therefore, to avoid overdramatizing the weakness of lone artillery units, this option is not endorsed with the same confidence as the other proposals. Of course, readers are free to experiment with this option to see if it accurately simulates the problems facing unsupported artillery units.

CONCLUSION

These options were designed to make an already excellent game even more realistic without changing its degree of complexity. The most drastic changes, those involving the artillery fire rules, provide better differentiation of units and more accurately simulate the tactical and strategic problems faced by the actual commanders. These options were not designed to transform the game into a true simulation as that would undermine its *raison d'être*. On the other hand, the flexibility of the game system permits the game to be enjoyed at several levels, depending upon the degree of experience of the players.