BLUE & GRAY
STANDARD RULES
for the games

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[1.0] INTRODUCTION

The Blue & Gray Game System is an operational simulation of warfare during the American Civil War era. Each game in the system represents one of the great battles in the period. The Playing Pieces represent the actual units which participated in the battles, and the Map represents the terrain over which those units fought.

Two rules folders are provided. The first contains Standard Rules, which are common to all the games in the Blue & Gray system. The second folder contains Exclusive Rules for the game you have purchased, and Initial Deployment and Reinforcement Rules for this game only.

This game has been designed to assure maximum playability and realism (in that order). In order to achieve these goals, the physical components, as well as the game rules, have been designed to make the game easier to understand and play. The components include a smaller, more compact playing map, never more than a hundred playing pieces, and standardized rules.

The standardization makes it easier for the gamer to go from one game to another within the series. It also enables the games’ designers to concentrate on the realism aspect of the games. (The standardization generally takes care of any playability problems.)

[2.0] GAME EQUIPMENT

[2.1] THE GAME MAP

The 22" × 17" map portrays the area in which the battle was fought. It includes all the significant terrain in the battle. It also displays a variety of Charts and Tables which assist play.

A hexagonal grid is superimposed over the terrain features printed on the mapsheet in order to regularize movement and positioning of the playing pieces.

To make the map lie flat, back-fold it against the creases. Small pieces of masking tape may be used at the corners of the map to hold it taut.

[2.2] GAME CHARTS AND TABLES

Various visual aids are provided for the players in order to simplify and illustrate certain game functions. These are the Terrain Effects Chart, the Combat Results Table, the Reinforcement Chart and the Deployment Chart.

[2.3] THE PLAYING PIECES

The cardboard pieces represent the actual military units that took part in the original battle. The numbers and symbols on the pieces represent the strength, movement capability, and type of unit represented by that piece. These playing pieces will hereafter be referred to as "units."

[2.4] HOW TO READ THE UNITS

Unit Size
Unit Designation

Unit Type

Combat Strength

Unit Designations
Confederate units are identified by their commander’s name. Union units are identified by numerals in this sequence: brigade/division/corps (roman numeral). Example: "2/3/IV" is the 2nd Brigade of the 3rd Division, 4th Corps.

Unit Types
Infantry
CAVALRY

Artillery

Unit Sizes
111 = Regiment
 XX = Division
 X = Brigade
 XXX = Corps

Combat Strength is the relative strength of a unit when attacking and defending, expressed in terms of Strength Points.

Movement Allowance is the maximum number of clear terrain hexes which a unit may be moved in a single Movement Point; the Movement Allowance for all units is six Movement Points. More than one Movement Point may be expended for each hex entered.

[2.5] GAME SCALE

Each hexagon on the map represents 400 meters of real terrain from side to side. Each Strength Point represents between 250 and 350 men.

[2.6] PARTS INVENTORY

A complete game should include the following parts:
One Game Map
One Set of Die-Cut Counters
One Standard Rules Folder
One Exclusive Rules Folder
One Die

If any of these parts are damaged or missing, write Customer Service Simulations Publications, Inc. 44 East 23rd Street New York, N.Y. 10010

Questions regarding the rules of the game, if accompanied by a stamped, self-addressed envelope, will be answered. Send to Game Questions Editor at the above address.

[3.0] SETTING UP THE GAME

The cardboard Playing Pieces should be punched out of the Unit Counter Sheet. The blue colored pieces represent Union forces; the gray colored pieces represent Confederate forces. The mapsheet should be unfolded and then backfolded against the creases to make it lie flat. Players should determine who will be the Confederate Player and who will be the Union Player.

The Players then consult their respective Initial Deployment Charts. These charts tell the hex number, strength and Designation of each unit which is in play (on the map) during the first Game-Turn. Players should simultaneously place each of these units in its proper position on the map. All remaining units should be placed aside and brought into play according to the Reinforcement Chart. In setting up units, Players may disregard historical designations, so long as the unit type and strength are correct.

Once the units are set up, Players are ready to commence Game-Turn One; place the Game-Turn Marker in the first position on the Game-Turn Track.

In order to determine which Player is the first Player and which the Second Player, consult the Exclusive Rules folder. There Players will also find rules for bringing in the reinforcement units which are given on the Reinforcement Chart. Play proceeds according to the Sequence of Play through the final Game-Turn.
[4.0] SEQUENCE OF PLAY
The game is played in successive Game-Turns composed of alternate Player-Turns. During each Player-Turn, the Player maneuvers his units and resolves combat in sequence, according to the following outline, and within the limits provided by the rules which follow. At the conclusion of the final Game-Turn, the Victory Conditions are consulted and a winner is determined.

[4.1] SEQUENCE OUTLINE
The Game-Turn is divided into a First Player-Turn and a Second Player-Turn. The Player whose Player-Turn is currently in progress is termed the Phasing Player. The activity which may take place during each Phase is outlined below:

1. FIRST PLAYER-TURN
A. Movement Phase: The Phasing Player may move all, some or none of his units as he desires within the limits and restrictions of the rules of Movement and Zones of Control, and the Exclusive Rules of the game. The Phasing Player may bring reinforcement units onto the map as allowed by his Reinforcement schedule and the Reinforcement rules. The non-Phasing Player's units may not move.
B. Combat Phase: The Phasing Player uses his units to attack the non-Phasing Player's units according to the rules of Combat and Artillery. During this Phase neither Player may move his units except when forced to, as a result of the Combat Resolution procedure.

2. SECOND PLAYER-TURN
The Second Player now becomes the Phasing Player and accomplishes movement and combat in the manner described above.

3. GAME-TURN RECORD INTERPHASE
The Game-Turn marker should be advanced one space on the Game-Turn Record Track to mark the passage of one Game-Turn and signal the start of another.

[5.0] MOVEMENT
GENERAL RULE:
During the Movement Phase, the Phasing Player may move as many or as few of his units as he desires. They may be moved in any direction or combination of directions.

PROCEDURE:
Units are moved one at a time tracing a path of contiguous hexes through the hex grid. As a unit enters each hex, it may pay one or more Movement Points from its Movement Allowance. The Movement Allowance of all units is six Movement Points. Thus, a unit can move through six clear terrain hexes in a single Movement Phase.

[5.1] PROHIBITIONS
[5.11] Movement may never take place out of sequence. A Player's units may be moved during his own Movement Phase. During the Combat Phase, a unit which is either attacking or defending may be called upon to advance or retreat after its combat is resolved. During the Enemy Player's Movement Phase, and during both Player's Combat Phases, except when advancing or retreating as a result of combat, Friendly units must not be moved.

[5.12] A unit may never enter a hex containing an enemy unit.

[5.13] A unit may never exit an Enemy controlled hex during any Movement Phase. An Enemy controlled hex may be left only during a retreat or advance as a result of combat (see 7.7).

[5.14] No combat takes place during the Movement Phase. Once a Player has begun to resolve combat, and has thrown the die, he has irreversibly initiated the Combat Phase.

[5.15] The number of Movement Points expended by a unit during a single Movement Phase may not exceed the Movement Allowance. A unit may expend any portion of the Movement Allowance, but unused Movement Points may not be accumulated until another Movement Phase or transferred to another unit.

[5.16] Movement from hex to hex must be consecutive; that is to say, a unit may not skip hexes.

[5.17] Once a unit has been moved, and the Player's hand is taken from the piece, it may not be moved any further during that Movement Phase, nor may it change its move without the consent of the opposing Player.

[5.2] EFFECTS OF TERRAIN
[5.21] A unit must expend one Movement Point to enter a clear terrain hex. To enter other types of terrain, a unit must often expend up to six Movement Points. And some hexes are prohibited to movement entirely. See 9.0, Terrain Effects Chart.

[5.22] A unit which moves from one road hex directly into an adjacent road hex through a road hexside expends only one Movement Point, regardless of other terrain in the hex.

[5.23] A unit which moves from one trail hex directly into an adjacent trail hex through a trail hexside expends two Movement Points if the hex being entered contains forest and/or rough terrain. If the hex being entered contains clear terrain, the unit expends one Movement Point.

[5.24] Units may never enter river hexes. They may cross rivers only by moving through river ferry hexes. Units may never end their movement in a river ferry hex. They may enter a river ferry hex only if they retain sufficient Movement Points to enter the river ferry hex and the hex on the opposite bank in the same Movement Phase.

[5.25] Units may never cross creek hexides. They may cross creeks only by moving through bridge or ford hexides. There is no additional cost for moving through a bridge hexside. Movement through a ford hexide costs one additional Movement Point. Example: If a unit moves through a ford hexide into a forest hex, the cost is four Movement Points.

[5.3] EFFECTS OF FRIENDLY UNITS
[5.31] A Friendly unit may move through hexes occupied by other Friendly units. There is no additional cost for entering a Friendly-occupied hex.

[5.32] A Friendly unit may end any Phase stacked in the same hex with one other Friendly unit. That is, a maximum of two units (regardless of strength or unit type) may be stacked in a single hex.

[5.33] There is no limit to the number of Friendly units which may pass through a single hex in one Movement Phase.

[5.34] Friendly controlled hexes never inhibit the movement of Friendly units.

[6.0] ZONES OF CONTROL
GENERAL RULE:
The six hexagons immediately surrounding a hex constitute the Zone of Control of any units in that hex. Hexes upon which a unit exerts a Zone of Control are called controlled hexes and inhibit the movement of Enemy units: All units must cease movement when they enter an Enemy controlled hex.

[6.1] All units exert a Zone of Control throughout the Game-Turn, regardless of the Phase or Player-Turn. The presence of Zones of Control is never negated by units, Enemy or Friendly.

[6.2] Units do not pay any additional Movement Points to enter an Enemy controlled hex, as in some other SPI games.

[6.3] There are only two ways to exit a hex in an Enemy Zone of Control: Either by retreat or advance as a result of combat, or by removal of the Enemy unit exerting the Zone of Control as a result of combat.

[6.4] Obviously, if a given unit is in an Enemy controlled hex, the Enemy unit is also in its controlled hex. The two units are equally and mutually affected.

[6.5] If there is an Enemy and Friendly Zone of Control exerted over the same hex, both Zones co-exist, and that hex is mutually controlled by both Players. There is no additional effect from having more than one unit exerting Zones of Control onto a single hex.

[6.6] Zones of Control always extend into all six hexes adjacent to the controlling unit's hex, with this exception: Zones of Control never extend through non-bridge and non-ford creek hexes or into River Ferry hexes.

Example:

[7.0] COMBAT
GENERAL RULE:
Combat between adjacent opposing units is mandatory. Artillery units (8.0) are the only units which may attack units to which they are not adjacent. The Phasing Player is termed the Attacker; the other Player is the Defender, regardless of the overall situation.

PROCEDURE:
The Attacker totals the Combat Strengths of all the units attacking a given hex and compares the total to the total Combat Strengths of the defending units in the hex under attack. The comparison is expressed as a ratio between attacking and defending Strength Points (attacking Strength Points divided by defending Strength Points) and is simplified by rounding down to one of the odds ratios on the Combat Results Table. Example: if thirteen Strength Points were attacking four, the combat odds ratio would be 3.25 to 1, rounded off (always in favor of the defender) to three to one.

Having determined the actual combat odds, the attacker rolls the die. The result indicates a line on the Combat Results Table (7.6), which is cross-indexed with the column representing the combat odds. The intersection of line and column yields a
combat result. This should be immediately applied to the involved units, before going on to resolve any other combat. Separate combats may be resolved in any order that the Attacker wishes, so long as all combats are resolved during that Combat Phase.

[7.1] WHICH UNITS ATTACK

[7.11] All Enemy units that have Friendly units in their Zones of Control must be attacked by the Friendly (Phasing) Player's units in the Combat Phase. He may resolve these attacks in any fashion desired, as long as all adjacent units are attacked, within the requirements of 7.2.

[7.12] All of the Phasing Player's units which end the Movement Phase in an Enemy controlled hex must attack some Enemy unit during the ensuing Combat Phase. The Phasing Player may choose which attacking units will attack each defending unit, as long as all adjacent Friendly units participate in an attack.

[7.13] An Enemy-occupied hex may be attacked by as many units as can be brought to bear in six adjacent hexes, and by as many artillery units as are within range (see 8.0).

[7.14] No unit may attack more than once per Combat Phase, and no Enemy unit may be attacked more than once per Combat Phase.

[7.15] Units may only attack when adjacent to the defending unit (exception: see 8.0).

[7.2] MULTIPLE UNIT AND MULTI-HEX COMBAT

[7.21] All units, defending in a given hex must be attacked as a single strength. The defender may not withhold a unit in a hex under attack. The attacker must attack all the units in a stack together; the Strengths of all the units in the hex are totaled, and this total Strength is attacked. Different units in a given hex may not be attacked separately.

[7.22] If more than one attacking unit is in a given hex, these units must be used as an integral Combat Strength. They may not be used in separate attacks.

[7.23] If a Phasing Player's unit is in the Zone of Control of more than one Enemy unit, it must attack all those adjacent Enemy units which are not engaged by some other attacking unit.

[7.24] Units in two or more different hexes may combine their Combat Strengths and attack a single hex, if all the attacking units are adjacent to (or are within range of) the Enemy occupied hex.

[7.25] Attacks may involve any number of attacking or defending units on different hexes. For the attacks to be resolved as a single combat, however, all the attacking units must be adjacent to all the defending units, with the addition of bombarding artillery units, which need not be adjacent.

[7.3] COMBAT STRENGTH UNITY

A given unit's Combat Strength is always unitary; it may not be divided among different combats either in attacking or defending.

[7.4] EFFECTS OF TERRAIN

Units defending in certain types of terrain may have their Combat Strength increased. This increase is always a multiple of the original Combat Strength. Example: a unit with a Combat Strength of "5" would defend, on a Rough Terrain hex, at an effective Strength of "10." See the Terrain Effects Chart (9.0) for a complete summary.

[7.5] DISCOURAGEMENT ATTACKS

A unit may make attacks at poor odds in order that adjacent attacks against other defenders may be made at higher odds (by allotting most of the attacking force to the major objective). These attacks are known as "Discouraging" or "Holding Attacks".

[7.6] EXPLANATION OF COMBAT RESULTS

(See Exclusive Rules Folder)

Ae = Attacker Eliminated. All Attacking units are eliminated (more from the map).

De = Defender Eliminated. All Defending units are eliminated.

Ex = Exchange. All Defending units are eliminated. The Attacking Player must eliminate Attacking units whose total, printed (face value) Combat Strength (at least equals the total printed Combat Strengths of the eliminated Defending units. Only units which participated in a particular attack may be so eliminated.

Ar = Attacker Retreats. All Attacking units must retreat one hex (see 7.7).

Dr = Defender Retreats. All Defending units must retreat one hex.

[7.7] RETREATING AND ADVANCING AS A RESULT OF COMBAT

[7.71] When the Combat Result requires that a Player's units be retreated, the Owning Player must immediately move those units one hex so that they are no longer in an Enemy controlled hex. The Owning Player may decide the location that each of his retreating units moves. Two units in the same hex may retreat in two different directions.

[7.72] A retreating unit may not retreat into a prohibited hex, cross a prohibited hexside, or enter an Enemy controlled hex. If no hex is open to retreat into, the unit is eliminated.

[7.73] A retreating unit may enter a vacant hex (within the restrictions of 7.72) or it may stack with some other Friendly unit (within the Stacking restrictions) so long as the unit it stacks with is not in an Enemy controlled hex. If there is no other alternative, it may displace an adjacent Friendly unit (see 7.8).

[7.74] If a unit is retreated into a Friendly hex which is subsequently attacked by Artillery bombardment, the already retreated unit does not contribute its Combat Strength to the defense (see 7.14), but it does suffer the result of the attack.

[7.75] Whenever a hex is vacated as a result of Combat, one victorious unit which participated in that combat may advance into the vacated hex. This advance may be made regardless of Enemy Zones of Control. The option to advance must be exercised immediately, before any other combat resolution. A unit is never forced to advance. A unit may never advance more than one hex as a result of combat. After advancing, units may neither attack nor be attacked that Phase (see 7.14), even if their advance places them next to Enemy units whose battles are yet to be resolved, or who were not involved in combat. However, advances are useful in cutting off the retreat of Enemy units whose combat has not yet been resolved.

[7.76] Only one victorious unit may advance into a vacated hex. If two hexes are vacated as a result of a single combat, the victorious Player may still advance only one unit.

[7.8] DISPLACEMENT

[7.81] If the only one hex available to the retreating unit is one which the unit could not normally move into because of stacking restrictions (5.31), then one of the units in the hex must be displaced. The displaced unit is moved back by the Owning Player (as if it were retreating as a result of combat) and its position is taken by the retreating unit. The displaced unit itself may not be forced into Enemy controlled hexes or other prohibited hexes. One retreating unit replaces only one unit in a stack; two retreating units displace two.

[7.82] If the displacement would cause any of the displaced units to be eliminated, the retreating unit is instead eliminated. Displaced units can themselves displace other Friendly units in a sort of chain reaction of displacement, if that is the only permitted path of displacement open to them. A unit may be displaced more than once per Combat Phase, if that is the only alternative. Displaced Artillery units which have not yet engaged in combat, may not fire during that Combat Phase. Units may not displace other Friendly units if they have other paths of retreat open to them.

[7.9] VOLUNTARY REDUCTION OF COMBAT ODDS

Prior to the resolution of any attack, the attacking Player may announce that he wishes to reduce the combat odds of that attack. He incurs no responsibility or penalty by doing this, but he may not change his mind subsequent to the die roll. Example: Attack is computed to be a "5-1" attack. Player announces that he desires a "3-1" attack, and resolves it using that column. Players may wish to do this to avoid excess casualties through exchanges, or to attempt to retreat Friendly units.

[8.0] ARTILLERY

GENERAL RULE:

Unlike infantry and cavalry units, Artillery units may participate in attacks by bombarding the defending unit. Artillery units may fire on a unit from two or three hexes distance. Artillery units must participate in combat when adjacent to opposing units. In other words, artillery may participate in two types of attack, depending on their distance from the defending unit (adjacent or not). Unlike other units, Artillery units are never destroyed; they are forced to retreat when bombarding a unit, although they are affected by all combat results when they are adjacent to the unit they are attacking.

PROCEDURE:

Determine the odds of the attack in exactly the same fashion as any other attack. All results are applied in the same fashion, except that bombardment Artillery units (i.e., units firing from a non-adjacent hex) are not affected by combat results. Thus, if an "Exchange" were the result in an attack solely by bombarding artillery, the defending unit would be eliminated, but the bombarding units would not be affected. Of course, other units cooperating with the bombarding Artillery units from an adjacent position (including adjacent Artillery units) would be affected by combat results, and they would suffer the effects of an "Exchange" result.

[8.1] BOMBARDMENT ATTACKS

[8.11] Artillery units may attack non-adjacent Enemy units, up to three hexes distant, but they are never forced to attack an Enemy unit merely because it is in range.

[8.12] Range from the bombarding Artillery unit to the target hex is counted by including the target hex, but not the bombarding unit's hex.

[8.13] Artillery units may only attack a single Enemy occupied hex when bombarding, except when making a combined attack with infantry or cavalry (see 8.2).

[8.14] If two Artillery units in the same hex are bombarding, they must both bombard the same hex.

[8.15] Artillery attacking from a non-adjacent hex (that is, bombarding) suffer no Combat Results; they are never destroyed or retreated as a result of their own attacks.
[8.16] Bombarding Artillery may voluntarily elect to suffer “Attacker Retreat” if it is the Combat Result.

[8.2] COMBINED ATTACKS
[8.21] Artillery units may attack alone, in concert with other bombarding Artillery units, or in concert with any Friendly units which are adjacent to Enemy units within range, adding their bombarding Combat Strength to the attack.

[8.22] If, in a combined attack, Friendly units are attacking Enemy units in more than one hex, the Artillery units need only be within range of one of the defending hexes to add their Combat Strength to the attack.

[8.23] When making a combined attack with bombarding Artillery units, infantry and cavalry units always suffer all Combat Results, though bombarding Artillery units do not.

[8.3] LINE OF SIGHT
[8.31] To determine if an Artillery unit may bombard a given hex, lay a straight-edge from the hex of the bombarding Artillery unit to the target hex. This straight-line is the Line of Sight. If any of the hexes intervening between the bombarding hex and the target hex is blocking terrain, the target hex may not be bombarded by that Artillery unit.

[8.32] If the Line of Sight is congruent to a hexside (that is, falling exactly between two hexes) it is blocked only if both hexes adjacent to that hexside are blocking terrain.

[8.33] Forest and Rough, Forest and Town hexes are the only blocking terrain hexes (not Rough terrain only).

[8.34] The terrain in the target hex and in the hex of the bombarding Artillery does not block the Line of Sight.

[8.35] Artillery units may fire over other units, Enemy and/or Friendly.

[8.4] ADJACENT ATTACKS
[8.41] When in the controlled hex of an Enemy unit, Artillery units must participate in an attack against adjacent Enemy unit(s). When an Artillery unit is in an Enemy controlled hex, it is treated like an infantry or cavalry unit, and may not bombard.

[8.42] When attacking from a controlled hex, Artillery units may attack as many units as they are adjacent to, but may not attack non-adjacent units.

[8.43] Artillery units attacking from a controlled hex must suffer all the Combat Results of their attacks.

[8.44] Terrain does not prohibit artillery attacks into adjacent hexes.

[8.45] An Artillery unit may make a bombardment attack when across a creek hexside from the only adjacent Enemy unit. Any Enemy unit within range could be bombarded, even the adjacent unit across the Stream hexside.

[8.5] DEFENSE
[8.51] Artillery units may never add their Combat Strength to another unit’s Defensive value by bombardment. They may only bombard during their own Combat Phase.

[8.52] When Artillery units are themselves attacked, they suffer all Combat Results in the same manner as other units, even when bombarded by Enemy Artillery units.

[9.0] TERRAIN EFFECTS CHART
(See Exclusive Rules Folder)

[10.0] NIGHT GAME-TURNS
GENERAL RULE: The tinted Game-Turns on the Turn Record Track are Night Game-Turns, and have a different Sequence of Play than day Game-Turns, in which the Combat Phase is omitted.

[10.1] EFFECT ON COMBAT
There is no Combat Phase during a Night Game-Turn, and no combat is allowed. Opposing adjacent units do not engage in combat; they simply remain in place. Artillery units may not bombard during Night Game-Turns.

[10.2] EFFECT ON MOVEMENT
Movement restrictions during Night Game-Turns are identical to Day Game Turn Movement restrictions, with one addition. Units may not enter Enemy controlled hexes during a Night Game-Turn, nor may units already in Enemy controlled hexes exit them.

[11.0] OPTIONAL RULE: ATTACK EFFECTIVENESS
GENERAL RULE: Whenever a unit receives an Attacker Retreat (Ax) result due to combat, its unit marker is inverted (turned face-down), and it becomes ineffective. It remains ineffective until a Night Game-Turn or, if no Night Game-Turn ensues, until the end of Game. When units are face-down on the map, such units have lost Attack Effectiveness and may only defend.

PROCEDURE: The backs of the die-cut counters are, of course, blank. Players may wish to pencil in quickly the strength of their units. This will obviate having to look under an Ineffective unit when it is attacked.

[11.1] HOW EFFECTIVENESS IS LOST
Attack Effectiveness is lost by attacking units only, when they suffer a Combat Result of Attacker Retreat. Units only lose Attack Effectiveness when they attack from an Enemy controlled hex. They lose it regardless of whether they moved into the adjacent position, or the Enemy did.

[11.2] RESULTS OF LOSING EFFECTIVENESS
Ineffective units may not attack, nor may they enter an Enemy controlled hex, until they have recovered their Attack Effectiveness. They may continue to move and defend in a normal manner, and retain a Zone of Control.

[11.3] ENEMY ZONES OF CONTROL
[11.31] If, at the beginning of any Friendly Combat Phase, a Friendly Ineffective unit is in an Enemy controlled hex, either all the Enemy units must be treated in combat so that no Enemy Zone of Control is in the Ineffective unit’s hex, or the Friendly Ineffective unit must retreat accordingly, per the rules of Retreat After Combat (see 7.7). This does not allow an Opposite Adjacent to the opposing unit.

[11.32] An ineffective unit which does not begin the Combat Phase in an Enemy controlled hex is not required to retreat as outlined in 11.31, even if (due to advance of Enemy units after combat) the unit is in an Enemy controlled hex at the end of the Combat Phase.

[11.4] RECOVERY OF ATTACK EFFECTIVENESS
The loss of Attack Effectiveness continues for a given unit until the end of any Night Game-Turn. At the end of any Night Game-Turn, all units are immediately flipped face-up and resume, in the following Game-Turn, a full Attack Effectiveness.

[12.0] DESIGNER’S NOTES
In designing the Blue & Gray game series, we started with the premise that the Civil War battles were similar in scale and intensity to the Napoleonic battles of 50 years before and that we could thus lift intact most of the design structure from the already completed Waterloo generation of games. We felt that the Napoleon at Waterloo game system as it stood combined the elements of playability and realism we were seeking in this game series. Thus, the scale of the Napoleonic games (400 meters per hex, 1-2 hours per Game-Turn) and certain salient play features, such as rigid Zones of Control, retreat and advance after combat, and sequential Player-Turns, were retained in the present games.

Yet the Civil War games could not be an exact copy of Napoleon designs. The Civil War battles did differ from Napoleonic battles in several important respects. First, and foremost, they were not decisive battles in the sense that Waterloo was.

The fact that a decisive battle of the Waterloo ilk did not happen was a tactical consequence of the general usage of the muskle-loading, percussion-capped rifle, which had been invented and refined in the decades prior to the war. This weapon was much more effective than the Napoleonic flintlock musket; extending the firepower of the infantry in range and reliability. The first consequence was that cavalry or, rather, the traditional massed cavalry charge, was reduced to a battlefield relic. Whereas before a cavalry charge could usually break a deployed infantry line, now anything except the most tenuous skirmish line was proof against cavalry. This meant that infantry could deploy in lines and mixed columns and lines, ignoring the presence of cavalry as a mounted threat. The second consequence of the rifle was to reduce the effectiveness of artillery as an offensive weapon. Napoleon had used artillery aggressively, massing it just beyond musket range of the enemy’s infantry and using canister to literally blow holes in enemy positions which could then be exploited by cavalry and reserves.

We incorporated one major innovation in the combat mechanics. That is Attack Effectiveness, which is presented as an optional rule. It was originally an organic part of the game, but was abandoned in the published rules. We asked ourselves if we would use it if it were revived? And we decided that the answer is yes: that the players who use it will find that they have to deal with a new and very realistic element in their battle management: That of proper and timely employment of reserves. In the regular games, a Player can afford to commit his forces to broad frontal assaults, putting pressure all along the line in hopes that he will get lucky with a series of I-1 and I-2 attacks, which could yield him a geographical advantage to exploit. Attack Effectiveness reduces the utility of this tactic. A Player who fails to keep an uncommitted fresh reserve available will find himself pinned in the end of a day of battle, with most of his army intact, but unable to attack and at the mercy of an opponent who has fresh troops.

At the same time, we changed the bombardment rules so that a Player could no longer use bombardment to allow his artillery to escape the consequences of being adjacent to an enemy unit.

We considered, for a while, switching artillery from bombardment on attack to bombardment in defensive support (adding its strength to some friendly defending unit) but decided not to, since we felt the defending player should rely not on the passive defense strength of his units, but on well conducted counterattacks to preserve a given line or position (for which bombarding artillery is invaluable).
[13.0] INTRODUCTION
Shiloh is a tactical level simulation of the largest single battle in US military history up to that date. Before the two-day battle was ended, elements of three complete armies totalling 100,000 men had participated, as well as elements of the US Navy. At the end of the second day, over 23,000 men were casualties. The battle was launched by the South, hoping that the newly-created Army of the Mississippi could decisively defeat the Union Army of the Tennessee before it could link up with the Army of the Ohio. Tactically, the battle was a Marginal Victory for Union forces, although its strategic implications were much more far-reaching. Had the South succeeded in its attempt, the state of Tennessee would have been recaptured by the Confederacy, and Union offensive power broken in the Western Theatre for at least a year. A Confederate thrust into the North would have been by no means improbable. The Union victory at Shiloh, more than any other battle, sealed the Confederacy’s fate in the West.

[14.0] INITIAL DEPLOYMENT CHART
On the Initial Deployment and Reinforcement Charts, an “a” following the unit’s strength means the unit is artillery; a “c” means cavalry; all other unspecified units are infantry; a “g” means gunboat.

[14.1] CONFEDERATE ARMY

<table>
<thead>
<tr>
<th>Hex</th>
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<th>Designation</th>
</tr>
</thead>
<tbody>
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<td>0818</td>
<td>6</td>
<td>Jackson</td>
</tr>
<tr>
<td>0718</td>
<td>7</td>
<td>Chalmers (Chalmers)</td>
</tr>
<tr>
<td>0616</td>
<td>9</td>
<td>Wood</td>
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<tr>
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[14.2] UNION ARMY

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</thead>
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<td>4a</td>
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<tr>
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<td>2c</td>
<td>I</td>
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<td>9</td>
<td>Cleburn (Cleburne)</td>
</tr>
<tr>
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<td>3a</td>
<td>2/II</td>
</tr>
<tr>
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<td>6</td>
<td>Johnson</td>
</tr>
<tr>
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<td>6</td>
<td>Hindman</td>
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<tr>
<td>0316</td>
<td>6</td>
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<td>2a</td>
<td>1/I</td>
</tr>
<tr>
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<td>5</td>
<td>Stephns (Stephens)</td>
</tr>
<tr>
<td>0215</td>
<td>6</td>
<td>Andrsn (Anderson)</td>
</tr>
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<td>Russell</td>
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<td>0117</td>
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<td>Res</td>
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<td>3a</td>
<td>4</td>
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<td>6</td>
<td>1/6</td>
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<td>2/1</td>
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<tr>
<td>0611</td>
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</tr>
<tr>
<td>0312</td>
<td>5</td>
<td>1/5</td>
</tr>
</tbody>
</table>

[14.3] PLAYER SEQUENCE
The Confederate Player is the first Player. His Player-Turn is the first in each Game-Turn.

[15.0] REINFORCEMENTS

GENERAL RULE:
Players may receive Reinforcements according to the Reinforcement Chart. These reinforcement units are placed on the edge of the map in the hex indicated on the track. Reinforcing units arrive during the Player’s Movement Phase of the Game-Turn indicated.

[15.1] The owning Player may enter his reinforcement units onto the map at any time during his Movement Phase.

[15.2] Once a unit has entered the map, it may move and engage in combat freely, just as any other unit already present.

[15.3] Each reinforcing unit spends one Movement Point to be placed on the entry hex. Units may exceed the stacking restrictions when entering the map in the same hex, as long as they conform to stacking restrictions by the end of the Movement Phase.

[15.4] Units forced off the map by combat are considered eliminated for Victory Conditions.

[16.0] REINFORCEMENT CHART

[16.1] UNION ARMY (only)

<table>
<thead>
<tr>
<th>Strength</th>
<th>-Type</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
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<td>5</td>
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</tr>
<tr>
<td>1413</td>
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<td>1c</td>
<td>4</td>
</tr>
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<td>1212</td>
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<tr>
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<td>5</td>
<td>1/5</td>
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</table>

Appearing on Game-Turn Five on hex 1701:
1g Lexingt (Lexington)
2g Tyler

Appearing on Game-Turn Six on hex 0901:
5 1/3
5 2/3
5 3/3
1c 3
2a 3

Appearing on Game-Turn Nine on hex 1905:
5 19/4
5 22/4
5 14/5
6 4/2
6 11/5
3a 5

Shiloh is composed of 13 Game-Turns (nr. 7 is night).
[17.0] VICTORY CONDITIONS

GENERAL RULE:
Victory is determined by the accumulation of Victory Points. Victory Points are awarded, as play progresses, for the elimination of Enemy Combat Strength Points. Victory is also determined by the occupation of hex #1508.

PROCEDURE:
Each Player keeps track of the Victory Points that he has scored on a separate sheet of paper. These Victory Points are awarded for a variety of actions as detailed on the Victory Point Schedule (17.1). At the end of the game, the number of Points is totalled for each Player, and the Player with the higher number of Points is awarded a victory.

[17.1] VICTORY POINT SCHEDULE
One Victory Point is scored for each Enemy Strength Point destroyed.

[17.2] LEVELS OF VICTORY

Confederate Decisive: The Confederate Player must have twice as many Victory Points as the Union Player and occupy hex #1508 (see 17.4).

Confederate Substantive: The Confederate Player must occupy hex #1508 and have at least as many Victory Points as the Union Player.

Confederate Marginal: The Confederate Player must have at least twice as many Victory Points as the Union Player.

Union Marginal: The Union Player must occupy hex #1508 and have more than half the number of Victory Points as the Confederate Player has.

Union Substantive: The Union Player must occupy hex #1508 and have at least an equal number of Victory Points as the Confederate Player.

Union Decisive: The Union Player must occupy hex #1508 and have at least twice as many Victory Points as the Confederate Player.

[17.3] OCCUPATION

[17.31] Occupation is defined as having a Friendly unit physically on the hex in question or having been the last to have moved a Friendly unit into the hex in question.

[17.32] The occupation definition can be met by moving a Friendly unit through the hex. Players should use a blanket counter of the appropriate color to keep track of which Player occupies the hex, if there should be any confusion.

[18.0] MOVEMENT RESTRICTION

On each of the first two Game-Turns, all Union units not locked by Confederate Zones of Control must move one, and only one, hex either to the North or Northeast (Union Player’s choice). Of course, a unit that is in an Enemy Zone of Control may not move. Starting with Game-Turn Three, the Union forces are free of this movement restriction.

[19.0] TENNESSEE RIVER

[19.1] GUNBOATS

The Union Player receives two gunboat units as reinforcements. These gunboats have an unlimited Movement Allowance, but may only move through all river hexes. Each turn, they may be moved to any River hex. They attack exactly like artillery. They have no Zones of Control and are not affected by Confederate Zones of Control. They may never be attacked.

[19.2] RIVER FERRY CROSSING

Certain Union reinforcements appear on the Eastern side of the Tennessee River. To join the other Union forces on the Western side of the river, they must use the Ferry Crossing. Only Union units may use the Ferry Crossing and they may only cross from East to West. The Ferry Crossing may not be used to evacuate trapped Union forces on the West bank. There is a Movement Point cost of three Movement Points to use the Ferry Crossing. That is, the entry cost of the River Ferry hex is three Movement Points (see 5.24). The Ferry Crossing may not be used if hex #1508 (Pittsburgh Landing) is occupied by Confederate units. It may be used if hex #1508 is merely in a Confederate Zone of Control.

[20.0] PLAYER’S NOTES

Southern Player:
The Southern Player has three strengths and two weaknesses that must be exploited and avoided if victory is to be gained. The first Strength that the Southern Player has is mobility. The Northern Player is limited in Movement for the first two Game-Turns and this will give the Confederate Player an edge in the Movement and Combat Phases. As far as the initial deployment is concerned, you are in about the worst possible place to mount an attack. The terrain is heavily wooded and rough-wooded...perfect for defense and terrible for movement. You should spend the first two Game-Turns moving rather than fighting. Use the East-West roads to maneuver the bulk of your force to the Union center where the terrain is more favorable to attack. While a number of comparatively minor attacks should be made on the first Game-Turn on the Union right flank, the main effort should come at the Union center.

The second strength that the Confederate Player has is a superiority in Strength Points and number of units in the initial deployment. As the first day progresses and the North takes losses, this ratio will increase. The Southern Player should never miss an opportunity to kill off a Northern unit. Because of the numerical superiority, it is possible for the Confederate Player to maneuver around the Northern units and make “Defender Surrounded” attacks.

The third advantage that the Southern Player has is initiative. The burden of attack is on the Southern Player and, by using it to the utmost the first day, he can always keep the Northern Player off balance and prevent him from launching any kind of counter-attack. Judicious use of advance after combat will force the Northern Player to make poor attacks (especially effective if the Attack Effectiveness rule is being used) and will enable a single Southern unit to “lock” several Northern units in place with Zones of Control.

The first weakness that the Southern Player must face is the terrain. The terrain is just made for defense; it is rugged enough to give good defensive benefits and Union control of the road, nets make Confederate maneuver difficult, at best. What the Southern Player must do is avoid making a major effort in the rough-woods areas and to continue to advance where clear terrain and roads are available.

The second and weakest weakness that the Southern Player has is time - it is all in the favor of the North. The Southern Player, in effect, has to win the first day if he is to win the game. If he fails to take either the bridge hex (0905) or the ferry point (hex 1508) he will be in serious trouble during the second day. The Southern Player starts the game as powerful as he is ever going to get. The Northern Player receives major reinforcements during the night and, if the Southern Player has suffered any kind of losses during the first day of battle, the initiative will shift irreparably to the Northern Player. If this situation occurs, the best that the Southern Player can hope for is to minimize his losses the second day.

Union Player:
There is little that the Northern Player can do for the first two Game-Turns except redress his clothes and tear his hair. One thing that he can do is use artillery bombardments as much as possible for the deadly exchanges and attacker retreat results.

Starting with the third Game-Turn, the Northern Player for the first time has some options. It is important to remember that the North does not have to win the first day; simple survival is enough. Avoid attacking Southern units unless forced to or unless you are fairly assured of eliminating a Southern unit. You must attempt to conserve your forces during the first day, but, under no circumstances, allow the Southern Player to flank you. It is worth sacrificing units to gain time.

Advance if you can lock two or more Southern units in place and also use holding actions at important crossroads to slow the Southern Advance. You will be unable to stop him the first day, but if you can slow him down enough to survive until night, you will have a good chance of winning. Use your artillery and gunboats for bombardment diversionary attacks to conserve your losses.

Both Players:
Although the terrain is not conducive to fast movement, maneuver is largely the key to the game. With the locking Zones of Control, a single unit can tie up a vastly superior Enemy force. Although the South has a slight edge in Strength Points and number of units at the start, time is working against him. Conversely, the Union simply does not have the units to be able to afford having even one unit locked unnecessarily.

The most effective attack is the 3-1 attack, particularly if the Defender is surrounded. It is not worth making higher attacks unless a 6-1 can be achieved; the risks of an exchange are too high.

Tactically, the best maneuver for both Players is to execute the attacks in such a manner as to be able to get a surrounded attack. This can best be achieved through judicious use of advance after combat.

One last important point - remember what your Victory Conditions are! It is often easy to forget them in the heat of the game. The North merely has to survive to win. The South must utterly destroy the North and the best way to do that is to capture the ferry point and bridge on the first day and then destroy the surviving units of the Northern Army on the second day.

[21.0] DESIGNER’S NOTES

The design of Shiloh in Blue & Gray proved to be a much easier job than I had anticipated. Most of the basic work was done already in the design of Napoleon at Waterloo, Austerlitz and Borodino. The Game Developer was able to provide a rules outline almost before the design of Shiloh had actually been done. What remained then was to
determine terrain, Combat Strengths, and a Combat Results Table.

I had thought that designing the game map would prove to be among the easiest tasks of the whole project. I quickly discovered I was dead wrong. Originally, my chief reference source for geography of the area was the West Point Atlas of American Wars. Using the basic idea of one hex equals 400 meters, a map was originally designed using data from the West Point Atlas. Frankly, it just did not seem right. Upon comparing the West Point Atlas data to the official, Thom map, it was discovered that the map in the West Point Atlas had a scale that was off by a factor of two. Thus, the original map I designed was two times too large. Additionally, it turned out that the map in the West Point Atlas was drawn in 1885, twenty-three years after the battle was fought! As a result, the road network was entirely inaccurate. Eventually, the Thom map was used as a prototype for Shiloh.

The development of the Combat Strengths proved not to be a very difficult task. Very complete orders of battle were provided in Battles and Leaders of the Civil War. Using the concept of 350 men equaled one Strength Point, the rest was just arithmetic. Fortunately, both sides had about an equal percentage of veteran and green troops, so this factor evened out in the end. The Northern troops were in somewhat better shape physically and were better equipped. As a result, the Union has a slightly high Strength Point total than the 350 men to one Strength Point formula would give.

Determining the Victory Conditions was perhaps the most difficult part of the entire game design. First of all, the objectives of both sides had to be determined historically. Fortunately, I had written an article on this battle for MOVES 9, and was fairly conversant with the topic. Basically, the South wanted to destroy the Army of the Tennessee or, at worst, prevent it from being reinforced. Historically, the Rebels failed on both counts and additionally had their own army severely mauled. The North itself was so badly crippled that it was unable to really follow up on any kind of exploitation the second day of the battle. They had to be content with just driving the Confederates off the field of battle. Taking this into consideration, I would rate the North as having won a Marginal Victory.

Of course, history and simulation are two separate beasts. Initially, in playtesting, the North proved to be too strong. Although the North should be able to win a Victory if they survive the first day, they were winning Decisive Victories at the end of the first day. The answer to this problem proved to be the restrictions on the Northern Player of moving on the first two Game-Turns. Historically, the North was caught literally just getting out of bed. This problem was compounded with the fact that General Grant had gone up river for a conference with General Buell and had neglected to leave any one of his subordinates in overall command of his army. As a result of these two factors, the Union spent the first few hours of the battle fighting as five separate divisions rather than as one coordinated army. Although the divisional commanders cooperated together beautifully, particularly for the Civil War era; it was just no substitute for an army commander. Thus, I felt that restricting the first two Game-Turns movement for the Northern Player would accurately reflect the situation. It proved to be a workable solution in playtesting.

Another factor to be brought into the game was a combination of the Combat Results Table and the Attack Effectiveness rule. This brings into simulation the point at which a unit is destroyed. A De result does not mean that every man in the unit was killed or wounded. It does mean that that unit received such heavy casualties that it ceased to exist as an effective unit or that its command structure was so badly damaged that the unit ceased to exist. An example of the first was what happened to Second Brigade of the Fifth Division (Union Army) under General W. H. L. Wallace; in the midst of a general retreat, Wallace fell mortally wounded and the organization of his division simply collapsed. Attack Effectiveness simulates the same factors, but to a lesser degree. Attack Effectiveness was one of the main reasons that the South could not win the battle. Although not a single brigade-sized unit or larger was destroyed during the first day in the Southern Army, its offensive capabilities were virtually destroyed by the end of the first day. Players should note that their casualties, in terms of Strength Points, will be approximately three to four times higher than what was historically lost in killed, wounded and captured. Again, this simply represents a unit's effectiveness; not just casualties. An example would be the condition of the Northern Army at the end of the first day of battle. Grant started out the day with an army of 33,000 men in the field. The total loss in men, killed, wounded or missing, for both the Army of the Tennessee and the Army of the Ohio for both days of the battle was 13,047. Yet at the end of the first day of battle, before the Army of the Ohio or Lew Wallace's Third Division could reinforce Grant's Army of the Tennessee, Grant estimated that he had only 7,000 effectives remaining at his lowest point in the battle (corresponding to the sixth Game-Turn). That would equal a grand total of twenty to twenty-five Strength Points remaining out of a starting total of 121 Strength Points. Thus, in game terms, Grant lost 80% of his command the first day of battle.

Historically, the battle of Shiloh was one of the most interesting and decisive of the Civil War. Just as the First Battle of Bull Run showed that the Civil War would be a long conflict, Shiloh gave the first indication of just how bloody it would be. At the time of the battle, April, 1862, it was the largest single battle involving American troops in US history. The total number of American casualties, in both blue and gray, was almost twice the total number of casualties of the entire Mexican War. If Bull Run set the time scale, Shiloh set the cost; the war was to prove long and bloody.
### [7.6] COMBAT RESULTS TABLE

<table>
<thead>
<tr>
<th>Probability Ratios (Odds)</th>
<th>Attackers Strength to Defenders Strength</th>
<th>Die Roll</th>
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<td>Ar Ar Dr Dr Dr De De De De</td>
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<td>2-1</td>
<td>Ae Ae Ae Ae Ae Ar Ar Ar Ar Ex Ex Ex Ex</td>
<td>6</td>
</tr>
</tbody>
</table>

Attacks executed at greater than 6-1 are treated as 6-1; attacks executed at worse than 1-5 are treated as 1-5.

### EXPLANATION OF COMBAT RESULTS

- $\text{Ae} = \text{Attacker Eliminated}$. All Attacking units are eliminated (remove from the map).
- $\text{De} = \text{Defender Eliminated}$. All Defending units are eliminated.
- $\text{Ex} = \text{Exchange}$. All Defending units are eliminated. The Attacking Player must eliminate Attacking units whose total, printed (face value) Combat Strength at least equals the total printed Combat Strengths of the eliminated defending units. Only units which participated in a particular attack may be so eliminated.
- $\text{Ar} = \text{Attacker Retreats}$. All Attacking units must retreat one hex (see 7.7).
- $\text{Dr} = \text{Defender Retreats}$. All Defending units must retreat one hex.

### [9.0] TERRAIN EFFECTS CHART

(See Terrain Key on Map.)

<table>
<thead>
<tr>
<th>Terrain</th>
<th>Movement Points [MP] to Enter [or Cross]</th>
<th>Effect on Combat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear Hex</td>
<td>1 MP</td>
<td>No effect</td>
</tr>
<tr>
<td>Forest Hex</td>
<td>3 MP</td>
<td>No effect (see 8.3)</td>
</tr>
<tr>
<td>Rough Hex</td>
<td>3 MP</td>
<td>Defender doubled in hex</td>
</tr>
<tr>
<td>Road Hex</td>
<td>1 MP; negates effect of other terrain in hex if entered through road hexside</td>
<td>Depends on other terrain</td>
</tr>
<tr>
<td>Creek Hexside</td>
<td>May only cross at bridges (or fords)</td>
<td>May only attack across bridges (or fords)</td>
</tr>
<tr>
<td>Bridge Hexside</td>
<td>No additional MP</td>
<td>Defender doubled if all attacking units attack across bridge (or ford) hexsides</td>
</tr>
<tr>
<td>Forest &amp; Rough Hex (Cemetery Hill, Chickamauga, Shiloh only)</td>
<td>6 MP</td>
<td>Defender doubled in hex (see 8.3)</td>
</tr>
<tr>
<td>River Hex (Shiloh, Antietam only)</td>
<td>May not enter</td>
<td>Not allowed</td>
</tr>
<tr>
<td>River Ferry Hex (Shiloh, Antietam only)</td>
<td>3 MP (see 5.24)</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Town Hex (Cemetery Hill, Antietam only)</td>
<td>1 MP</td>
<td>Defender doubled in hex</td>
</tr>
<tr>
<td>Ford Hexside</td>
<td>1 MP additional to cross</td>
<td>Defender doubled if all attacking units attack across ford (or bridge) hexsides</td>
</tr>
<tr>
<td>Trail Hex (Chickamauga only)</td>
<td>2 MP; negates effect of other terrain in hex if entered through trail hexside. Ignore Trails in Clear Terrain.</td>
<td>Depends on other terrain</td>
</tr>
</tbody>
</table>

### DESIGN CREDITS

Game Design: Christopher J. Allen  
Physical Systems Design and Graphics: Redmond A. Simonsen  
Systems Design and Game Development: Irad B. Hardy, III, John Michael Young, Christopher J. Allen  
Production: Manfred F. Millkun, Larry Catalano, Kevin Zucker, Linda Mosca