



Wellington's Victory

Second Edition

Support Booklet

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by Chris Perello

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INTRODUCTION

This booklet contains notes and other materials that could not be fit into the Wellington's Victory (WV) rules booklet. It may be amended from time to time.

24.1 EXPANDED DESIGNER'S NOTES

The designer's notes in the rules booklet were culled from an original file of almost 10,000 words—no one ever said I don't like the sound of my own voice, even when it's inside my head. My first intention with this set of notes was to add those portions cut to fit the notes in the rules, but it resulted in a disjointed read. I therefore present the original notes here in their entirety; you will recognize some portions.

Frank Davis' original *Wellington's Victory* (OWV) was a great design in that it brought together all the disparate characteristics of Napoleonic warfare in a relatively clean system. It was flawed as both simulation and game, however, by several major and a number of minor problems. Collectively, they made for a tedious game, ahistorical processes, and just plain weird tactics. I found I could get through the game, or more often its diminutive cousins *Ney vs. Wellington* (S&T 74) and *Monmouth* (S&T 90), only by using a plenitude of fixes. I gather from conversations with other gamers that this was the norm; house rules abound.

My goal for this remake was to make the game simpler and cleaner, following the philosophy that the bigger the game, the simpler the mechanics must be to avoid tedium. Complexity should come from the permutations of many simple actions.

My first inclination was to do as I and others already had: tweak the rules by manipulating the sequence and adding this or that modification. However, the rules were well written in the sense that they constituted a seamless web; changing one rule only led to the need to change others. Moreover, tweaking did little to address the underlying problems, so a more extensive overhaul was needed. As is so often the case with a redesign, undesigning the original is even more painstaking than starting from scratch.

What follows are detailed discussions of some of the key decisions and the rules flowing therefrom, presented by section and case.

2.3 COUNTERS

The major change here is the vast increase in combat units (over 1,000 to 315 in OWV) and the deletion of strength markers (800 in OWV). The former was done by spreading infantry battalions across multiple counters and presenting cavalry as squadrons rather than regiments (see 6.0 and 7.0 below).

The other big change is purely physical. Overall I kept the basic format of the counters: white icons to identify unit types, black type, and a background color. The only icon that changed is cavalry; I always found the lone white stripe to be too similar to the infantry X, and one of my goals was to make unit types easily distinguishable from a distance (meaning far enough to stand back from the map and see the overall situation). A full triangle did the trick. In a similar move, leaders are in a darker shade than combat units to make them easier to pick out.

2.4D PRUSSIAN APPROACH

One of the mysteries of Waterloo (to English-language readers) is why Napoleon detached such a large force (Lobau's corps and two cavalry divisions) to guard against the as-yet inchoate threat of the Prussians. The presence of even half that force as a backstop to D'Erlon's attack almost certainly would have precluded the success of Uxbridge's charge.

The question became even more important when I saw two Waterloo games (one of OWV, the other of *La Bataille de Mont St. Jean*) being played at recent conventions. In the OWV game, the French player sent not a single regiment to watch the Prussians, calculating (correctly) that he could defeat Wellington before the

Prussians arrived. In the *La Bataille* game, the French sent a couple of cavalry regiments to block the Prussian entry hexes, again confident in an early victory over the Allies. Either the games were missing something, or Napoleon was an idiot. I thought the former more likely.

A careful examination of the Prussian approach, nicely documented in Peter Hofschroer's *German Victory*, explains the apparent anomaly. The Prussian advance guard was at Chapelle St. Lambert, just two miles from the eastern edge of the battlefield (Bois de Paris), by 1000, almost two hours before the battle started. Napoleon knew it, and Wellington knew it (Prussian patrols actually made physical contact with the British left before the shooting started). Wellington asked Blücher to hold back until French intentions were clear. Had Napoleon lunged forward as the French players in both games did, the Prussians would have moved onto their flank (with one or two brigades, or more by the time D'Erlon actually attacked). Even with only one brigade on hand the effect would have been catastrophic.

By despatching Lobau with so strong a force, Napoleon ensured the safety of his right for a time. Blücher could not risk entering the fray if his brigades could be chewed up one at a time. He therefore had to wait until more troops arrived, finally moving out at 2:00 p.m. with an entire corps. Lobau's detachment had given Napoleon a free hand for three hours.

This somehow had to be included in the game; there could not be a fixed entry time (or place) for the Prussians. On the other hand, it would not do to give the Allies the option of bringing the Prussians onto the map at any time (at a strength varying with the arrival of additional units through the day). The Prussian arrival chart was the answer. Judicious use of hidden movement (see 23.0 below) allows the Coalition player to maneuver the Prussians along Napoleon's eastern flank, but in such a way that the actual Prussian locations cannot be altered in an instant should the French player provide an opening.

3.0 TERRAIN

OWV's maps, though garish, were elegant and functional. I generally retained the design, though I did adopt the intermediate colors found in *Ney vs. Wellington*, which I thought more pleasing to the eye as well as adding to the number of levels.

One of the cleverest features in OWV was the simplicity of its terrain types, particularly the division into clear, soft cover, or hard cover. I kept as much of that as I could, but wanted some additional types to give more nuance. I also substituted disorder effects for some types extra MP on some unit types and formations, which I thought was a better measure of the effect of terrain (it doesn't so much slow you down as break you up).

One feature of OWV I did jettison was the 1MP penalty for moving to a higher elevation, mostly because the slopes on the battlefield are so gentle. The only indication of a real effect on the battle was the slowing of the great French cavalry charges during the afternoon, but this was caused more by mud and fatigue than the slopes themselves. Steeper gradients are handled with the new slope feature.

3.5 OBSERVATION

The descending slope rule in OWV (10.53) has been eliminated because the additional elevation levels allow its portrayal without a special rule. The crucial element in making this work is consideration of the elevation of each *hexside* as well as the hexes. The requirement for a determination of distance between target and an intervening contour has been eliminated because the gentleness of slopes make it unnecessary. Those places where there is an issue are handled with slope hexsides.

4.0 TURN SEQUENCE

The asymmetrical turn sequence in OWV was recognized as controversial by the designer. Virtually every OWV player has an opinion about it, generally negative. Davis' rationale for the asymmetry was that Wellington's reverse-slope disposition actually did present each commander with a different set of problems, but this explanation only holds up for a few aspects of the battle. It does not port well to other situations (especially the Prussian attack) and certainly not to other battles. The original phases were:

1. French Command & Charge Declaration
2. French Rally
3. Allied Facing & Formation Change
4. Allied Movement
5. French Shock
6. Reciprocal (alternating) Artillery Fire
7. Reciprocal (alternating) Infantry Fire
8. Allied Command & Charge Declaration
9. Allied Rally
10. French Facing & Formation
11. French Movement
12. Allied Shock

The most common complaint revolves around the timing of the firing phases. It does create a number of oddities, two of which will suffice as exemplars.

- **Cavalry Charges:** French cavalry moves (Phase 11), declares a charge (Phase 1), then conducts shock (Phase 5) before Allied artillery gets to shoot at it (Phase 6), though in reality artillery was instrumental in breaking the French charges. Allied cavalry on the other hand, moves (Phase 4), but undergoes artillery fire (Phase 6) before declaring its charge (Phase 8).
- **Skirmishing:** When French skirmishers advance (Phase 11), Allied units may move away (Phase 4) before the skirmishers fire (Phase 7). This leads to a kind of passive-aggressive attack, where the French boldly move forward hoping to get reaction fire if the Allies retreat. The Allies cannot do likewise; their skirmishers move (Phase 4), but must engage in fire combat (Phase 7) before the French can move away (Phase 11).

Many players created house rules adding another pair of fire phases after the French shock phase (*Monmouth* made it official with a symmetrical sequence). While it does smooth play in one sense, it overturns Davis' whole asymmetrical approach, and the last thing the game needed was additional phases.

While I concur with this consensus view (if it can be called that), I have two other major issues with the sequence.

First is the reciprocal fire methodology. The fire phase starts with determination of one "end" of the line. One player fires his end unit, the other does the same, then fire continues alternating down the line, with no skipping allowed. In theory this will yield an historically accurate series of one-on-one firefights, but in practice leads to a ping-pong chain of unrelated fire. Players are motivated to have each unit shoot not at the enemy who fired at it, but at the enemy who will fire next. My solution is discussed below in fire combat (15.0).

My second complaint is the specificity of each phase gives play a segmented feel. Too much time passes between doing something once to doing it again. Some things (movement) get telescoped, whereas it should take most of the turn, while others (facing and formation) take both too much and too little time. OWV offered, as an optional rule, a sensible and simple change, namely the merging of each player's facing & formation phase with the following movement phase (a combination adopted in the later iterations).

It was a good start, but more was needed. I went the rest of the way and adopted an alternating sequence. Each of the original phases has been incorporated into a movement phase or a combat phase. As I see it, the movement phase takes most of the time of the turn, so is used for issuing orders (save a limited command phase), moving, recovering, changing status, initiating combat, etc. Actual combat—all of it: firing, shock, charge, and reaction—is combined in the combat phase. It is considered to have no duration, but is just a pause in movement to resolve all the events generated during movement.

This is not as much of a change as it might appear since the original sequence was (almost) alternating anyway, to wit:

- 1-2: French
- 3-4: Allied
- 5: French
- 6-7: Both, alternating
- 8-9: Allied
- 10-11: French
- 12: Allied

5.0 COMBAT UNITS

OWV presented the armies as infantry battalions, cavalry regiments, and artillery batteries. The specifics of each are described in 6.0 through 8.0 below.

The treatment of all units, but especially formed infantry, made units too clumsy and too fragile, while skirmishers were far too powerful and not fragile enough. The clumsiness was a result of the formation rules, which have been changed and expanded (6.3 et seq., 7.0, 8.0, and 12.0 below).

The fragility was the outcome of the rather severe disorder and rout rules, particularly as both effectively negated a unit's ability to adopt formations. This too has been changed, with less severe results and more of them (5.4).

5.4 UNIT MORALE

Morale had received generally short shrift in 1970s gaming. True to its miniatures roots, OWV not only addressed it but made it central. There were two essential forms of unit morale in the game (morale for the entire army is discussed at 22.0 below). First, a unit's effectiveness could be reduced due to disorder or rout. Either could be caused by casualties, melee results, or other occurrences (such as a nearby unit routing). Second, a unit's current morale was reduced by casualties, dropping one from its printed morale for each strength point lost. I like the general effects but disagreed with their execution.

OWV treated disorder as both a formation and a morale state. It should be neither: it simply represents portions of a unit not being in complete synch with the whole. In this game, disorder weakens the unit, but it retains the capacity to fight and to adopt other formations. I figure the D3 (demoralized) status is equivalent to disorder in OWV, while D1 and D2 are something less.

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Rout also is less crippling than in OWV, where it turned a unit into an uncontrollable mass of men fleeing the map if left alone long enough. I [prefer to treat it as an event rather than a status, being a one-time evacuation of the immediate vicinity, followed by reduction to the worst level of disorder (D3, precluding adoption of any formation other than the printed one) and generation of a fortune of war (19.0).

My take is that even routing units retained some semblance of order; most routs are not so much panics as a “rapid displacement” to escape from a disadvantageous position. It should be seen as a rational response to a particular situation. Gone altogether is the on-going retreat of routed units in subsequent turns; I found no such instances during the battle other than the purported evacuation by the *Cumberland Hussars*. No doubt many individuals did leave the field, but the incidence of “Dutch-Belgian” straggling (up to and including “thousands” camping out in the Bois de Soignes) almost certainly is an exaggeration by British observers, passed on by Siborne.

In keeping with one of my long-establish design tenets, losses generally have only a minor effect (if any) on combat strength because they really were not a major factor in a moment to moment sense. For example, the British infantry lost roughly a quarter of its men at Waterloo, and this average was remarkably consistent: of 26 battalions present, 17 (two-thirds) lost between 18% and 33% of their starting strength. While no doubt a calamity for the individuals struck down, none of those battalions was seriously injured; all were still in the line and fighting at the end of the day. Only one battalion lost over 50 percent, the *1/27th*, who manned the crossroads just behind La Haye Sainte and left 82% of their number on the ground. To the extent losses weaken a unit (combat or morale), it is built into the combat strength on the reverse face of a battalion's counters. This allows units, such as the *Old Guard* or the *1/27th*, to remain (historically) effective despite appalling losses.

6.0 INFANTRY

Infantry unit organization is described at 26.5B on page S18.

6.3 INFANTRY FORMATIONS

Infantry remains heavily dependent on formations for effectiveness. There were many possible arrangements a battalion's companies could adopt, but in almost all the individual companies remained in a 2- or 3- rank line, doubled for dense formations like square.

OWV allowed four formations: line, column, square, and skirmisher (which was not properly a formation since only detached skirmisher companies could adopt it, and they were in it permanently). This has been expanded to six in this game: two kinds of column, line, open order (the proper name for skirmish formation), square, and garrison.

6.3A INFANTRY IN COLUMN OF DIVISIONS

The presentation of columns in OWV was badly flawed, if for no other reason than there were many kinds of column. In addition to administrative or marching columns (column-of-fours, incorporated in both OWV and this game as increased movement rates for grand-tactical or marching movement), there were many column variants used in combat. For simplicity's sake, I have divided them into close columns (6.3C) and column of divisions. “Division” in this regard means a pair of companies [in line] side by side.

Column of divisions was *the* standard infantry formation in all armies, even the British. The divisions were arranged one behind the other with a wide gap between each. The column effectively was a set

of three or more short lines that could be rearranged at a moment's notice, and which was not appreciably more vulnerable to enemy fire than a line.

This flexibility and dispersion, missing entirely in the original, is embodied in this new formation. A battalion in COD has the ability to move fast through all terrain and, crucially, to react quickly by changing facing or formation (then greatest likelihood being into square). It has decent firepower (the battalion commander is presumed to deploy his other divisions laterally when engaged in combat) and good shock power. In short, it is the ideal formation in chaotic situations.

6.3B INFANTRY IN LINE

One of the primary dichotomies of the era was the debate between line and column, shown in the original by giving the latter better shock value at the cost of reduced firepower and much greater vulnerability to fire. In reality, there was no debate: all armies used columns as the standard formation for movement and assault, with line prescribed (except for the Russians) for most combat.

What might come under discussion is how long to wait before making the final deployment. Waiting too long, as the French repeatedly had done in Spain, put them at a severe disadvantage to the British at the critical moment. This is a question of command decision rather than any inability to execute the order or unwillingness to adopt the formation.

In broad strokes, OWV handled infantry in line fairly well: it was powerful when firing, less so in shock, and generally clumsy when moving. However, there are other important distinctions that needed to be made.

In particular, I felt there was insufficient difference in the relative clumsiness of line vs. column. All histories emphasize that the former were at a significant disadvantage when faced with attacks from the flank. This is handled by the new standard vs. ponderous turning rules (11.2, 11.3, and 18.5).

A second raging “debate” involved the difference between two- and three-rank lines; as with the column-line issue, the men on the ground at Waterloo would have recognized no real debate. All European armies (including the British, though not the American) officially prescribed a three-rank line. Commanders in the field often modified this into a two-rank line to cover a wider front (essential for the small British armies) or into a four- or even six-rank line for greater weight for assaults or to receive cavalry.

Even when the third rank was retained, it dissipated quickly as men moved forward to replace casualties or those put out of action due to misfires. Frequently, the entire rank would be detached as skirmishers (a matter of doctrine in the Prussian army).

Most commentators—and OWV—allow the two-rank line a 50 percent superiority in firepower. As a practical matter, three-rank lines suffered only a relatively minor reduction in actual fighting power. In game terms, I eliminated the issue by giving those units more adept at linear fighting (British and KGL) higher combat strengths.

One other point worth noting is the discarding of OWV's extended line rule (OWV 8.3), using a marker in an adjacent hex to represent the longer line of a unit above a specified strength. This was just a nightmare of a rule and utterly unnecessary. Most battalions would not form an overly long line because of the difficulty of control, the added time needed to form square, and the unlikelihood that everyone in the battalion could shoot at the same target. This is not ahistorical; during the battle, the British and KGL battalions generally deployed in a four-rank line because of the numerous French cavalry. When forming

a longer front, a battalion was more likely to act as wings rather than a single whole, as, for example, done by the immensely large British *52nd Light* at Waterloo (the battalion also formed two squares rather than one). The use in this game of multiple counters for a battalion makes this a possibility, controllable entirely by the player with no special rules needed.

6.3C INFANTRY IN CLOSE COLUMN

The proper use of the term “close column” was to describe a column of divisions with minimal gaps between companies and divisions; in other words, a solid mass of men. This is the formation described and defined as a “column” in the original. For the record, close column in this game incorporates other dense column formations such as the Austro-Prussian *mass* (a tight column intended for use in a cavalry-rich environment without have to form square—the gaps between divisions being filled by officers and NCOs who normally stood outside company ranks), the open squares used by the *Guard*, and columns of battalions in line such as those used by D’Erlon’s corps for its initial assault at Waterloo.

Close columns are useful for moving masses of men in a group, and for powering through an enemy position. D’Erlon’s columns, for example, were formed of between four and eight battalions in line and were intended to deliver the mass of the corps into the main British line without having to worry about coordinating many individual columns. Once there, the front battalion, already in line, was to open fire while the following battalions could deploy by dropping back, or staying behind as the lead units advance, or sliding out of the column “by the flank” (a movement in which each man turns left or right, turning the line into a column of threes). Although the use of these massive formations ended in disaster, the idea was sound and worked well until the sudden appearance of British cavalry.

The drawbacks of the formation are greater vulnerability in just about every other way, and greater clumsiness in movement and redeployment: in a word, they are unwieldy and should be avoided except in those situations where the enemy is fixed and isolated (especially from artillery or cavalry support).

6.3D INFANTRY IN OPEN ORDER

Skirmishers unquestionably were one of OWV’s big problem areas, being too powerful in too many ways. They have too much freedom of movement and cooperation. Their consistent high quality and excessive stacking makes them overly powerful in combat, particularly in shock combat against disordered opponents. At most 200 skirmishers could be deployed in a single hex, not the 900 allowed in OWV. House rules often addressed this problem somewhat by treating large stacks as a line or even a column for target classification, though these did not address their combat power. OWV too often turned into a series of bushwhacks between skirmishers, while the formed infantry huddled for safety.

As a practical matter, skirmishers performed three separate functions. First was to act as an early warning line for the parent battalion. A thin cordon of men would be sent out a short distance in all directions to ensure the battalion was not caught by surprise; the cordon could be thought of as the unit’s “zone of control,” though that term is not used in this game. In game terms, both the original and this version, this activity does not show on the map; all battalions are presumed to use them, their effects being built into the reaction and disorder rules.

The second skirmish activity, entirely left out of OWV, is best termed “open order” fighting and was at least familiar to pretty much

every infantryman in every army. Infantry in open order remained a tightly-controlled body under the command of an officer: the company commander if a whole company was deployed, a field officer when men from different companies or battalions were formed into a composite unit.

In action, pairs or fours of men worked together, one firing while the rest loaded to keep up a constant fire. Formed supports hovered nearby, usually under cover, feeding men into the firing line or forming a defensive position if threatened: line when facing infantry, a small square (or circle) against cavalry. Critically, the formation was essentially linear, and as susceptible to flank attacks as a line or column.

Open order formation was so useful that it was used increasingly throughout the Napoleonic Wars. It was ideally suited to action in woods and towns, and even in the open field as long as no enemy cavalry was nearby. The Prussian army had adopted it as its standard combat formation; each brigade was to form a firing line fed by supporting battalions. Only when fire superiority was achieved would formed units—in column—be sent in for shock action. This eventually would become the standard infantry tactic from the middle of the 19th century (when breechloading shoulder arms became available) through the opening battles of World War I.

The open order markers give all units this capability, though only trained skirmishers (“S”) can make maximum use of it. Every unit in open order also retains its printed combat and morale factors; the formation does not impart additional qualities to the units.

The final use of skirmishers, what might be called “true” skirmishing, was an exaggerated form of open order fighting in which each man “fights on his own hook;” in this hemisphere it is often called “Indian fighting” though I prefer the Spanish term *en debandada*. This is the image brought to mind when reading of French *Tirailleurs* swarming to the attack and certainly is what OWV intended to portray.

This type of fighting generally dispenses with formed supports and can operate at some distance from the main line. It naturally relies heavily on the motivation of the individual soldiers and was therefore thought to be ideal for the newly enfranchised French in the Revolutionary Wars. Its purpose was to either prepare the way for one’s own attack columns by chewing up the defenders, or so weaken an attacker he would fall apart before striking the main defending line.

Motivation, it turned out, was not enough. The French “grand bands” of skirmishers routinely fell apart in the face of disciplined opponents, and were easy prey for even small bodies of cavalry. Only superbly trained infantry, limited at Waterloo to a few British light regiments and maybe the German *Jäger*, were capable of conducting such tactics with anything remotely resembling effectiveness. It can be utilized here simply by using a mass of units in open order, but beware lurking enemy cavalry.

Infantry in open order remains highly useful everywhere and ideal in some situations, but is no longer the dominant infantry formation.

6.3E INFANTRY IN SQUARE

The square formation in the original worked well enough, though two changes have been made.

First (in common with all formations), they remain in effect despite disorder, being removed only when a unit is demoralized, something that happens only after a rout.

Second, they can move, enabling among other things the slow retirement of the final squares of the *Old Guard*.

24.1 EXPANDED DESIGNER'S NOTES

6.3F INFANTRY IN GARRISON

This is less a formation than an indication of intent. It has been added to replace the use of skirmishers to defend fixed points. Like open order, a garrison represents a loose line of men spread around the perimeter of the hex, with ordered companies in the center as reserves. Since by definition the unit has been deployed to maximize its ability to defend a particular hex, it made sense to limit its ability to move out of the hex.

7.0 CAVALRY

OWV handled cavalry only adequately, missing some key characteristics. The most obvious difference between the two games is that cavalry is now represented as squadrons rather than entire regiments. This is appropriate as the squadron was the normal unit of maneuver. A single squadron, on the other hand, tends toward fragility, so players are encouraged as a practical matter to keep them in groups, though not necessarily whole regiments. [See also the discussion at 26.5C on page S18.](#)

Like OWV (and like infantry companies), squadrons were almost always deployed in line. They could be arranged in columns, however, something missing in OWV due to the regimental presentation (though it certainly could have been added by backprinting cavalry units as was done with infantry, a surprising omission). This can be done in either a column of divisions equivalent (by stacking squadrons), or in close column, which increases combat power and allows wave combat, again with the disadvantage of increased vulnerability to enemy fire.

Where the mounted arm particularly got the short end of the stick was being limited to attacking only by charging. In this game, cavalry may also engage in regular shock combat and skirmishing. Most troopers had a pistol or two as well as a sword, and all regiments, the light ones in particular, had some troopers carrying carbines. Like infantry units, squadrons were perfectly capable of breaking into small groups, each of which could carry out separate functions like hand-to-hand combat, small-scale charges, even skirmishing from horseback. They are invaluable for operations on open enemy flanks and for riding down skirmishers. That said, cavalry's *raison d'être* remains the charge (see 16.5 below).

On the whole, cavalry, especially the light units, are more useful in this game than OWV.

8.0 ARTILLERY

By comparison to the other arms, the presentation of artillery in this game has been changed very little from OWV. [Battery organization is covered at 26.5D on page S18.](#)

OWV's tracking of individual gun strength and losses has been discarded for purely practical purposes. Individual guns were put out of action, almost entirely due to carriages being smashed. A single gun just did not make much difference to a battery's firepower, so I retained the same two-step presentation as other units.

Crew losses are treated as congruent to gun losses rather than separately. If guns were destroyed, extra men could not make the remaining guns fire faster. If enough men are lost, the fact that guns are available to be manned made little difference. As an aside, the idea of skirmishers taking over abandoned guns is not credible; it certainly could be done, but without the right training they would be ineffective at this scale.

The addition of unlimbered movement obviously is fraught with problems and limitations, but it was possible, at least with lighter cannon, and was done on occasion (most prominently by Senarmont at Friedland). As a practical matter, its utility is limited to those situations

where it can be moved into a hex where it will be able to react to an anticipated enemy move in the opposing player's next movement phase.

OWV's fixed range of 800 yards for all artillery ignored some important differentiation by gun type, especially shortchanging Napoleon's *belles filles* (12-pounders) and British 9-pounders. It was a simple matter to give each battery a range factor, adding granularity and nuance to its presentation.

Extended range was an optional rule in OWV and a good one, else the French grand battery could not reach targets it pounded all afternoon. I incorporated it into the range rules.

10.0 MOVEMENT

Movement overall has not changed much from OWV. Infantry can cover roughly 3/4 m.p.h. using normal movement, something more than that when accompanied by a leader, and up to 3 m.p.h. using march (grand tactical) movement. Cavalry will move roughly half again as far. Overall, units will cover slightly more ground in this game than OWV when marching, slightly less when near enemy units.

The biggest change in movement has to do with agility rather than actual speed. Even a modestly-trained unit was perfectly capable of marching obliquely, reversing to move backward, or marching sideways ("by the flank"). Actual facing changes could be done quickly, both in-hex and while moving. Ponderous units and formations (like line) are at a disadvantage compared to the nimble columns. From the players' standpoint, movement (and other status issues) is less restrictive than in OWV.

11.0 FACING

The most obvious facing change from OWV is shifting from orientation on a vertex to orientation on a hexside. Limiting a unit's front to just one hex helps create one-on-one firefights rather than the ping-pong engagement described earlier, and greatly simplifies the reaction rules. I also think a 60-degree frontal arc is more appropriate to linear formations than the 120-degree arc of the vertex facing. Imposing facing on skirmishers (open order) reflects the fact that they were not mobs, but intact units with definite fronts.

The oblique hexes restore the larger arc (actually 150-degrees) for purposes of incoming fire to prevent units being too vulnerable, and for firing at reduced power.

As noted earlier, the units of the day, though rigid by modern standards, were more than capable of seeing enemy units coming and reacting to them. Turning is embedded in movement and has been made fairly painless; only when in close proximity to enemy units, and during reaction, will difficulties in facing changes occur.

12.0 [CHANGING] FORMATION

The process of getting into or out of a formation also was made part of the movement process to increase its flexibility—like facing, the actual changes could be made quickly by even the poorest units, and could be done while in motion. Limiting changes to the beginning or end of movement, or to certain kinds of reaction, precludes the need to count MP for each change.

13.0 STACKING

Stacking was one of the hardest sections to design because it involves the interrelationship of units, facing, formation, movement, and combat. All told the rules are not too different from OWV, with the exception of loosened restrictions for specific unit/formation combinations, and of course for unlimited stacking.

The unlimited stacking was introduced both to allow unusual formations, like d'Erlon's massive columns, and to preclude the necessity of creating rules for overstacking; there are enough disadvantages to large stacks without adding explicit punishment.

Unlike OWV, the number of men in each unit does not matter because the numerical size of a unit does not greatly alter its physical size—every unit must have a certain amount of space around it just to allow officers to move around if nothing else.

There also is no prohibition on mixing unit types, partly for simplicity but mostly because these units were well-drilled enough to be able to move in close proximity to one another.

The relative freedom of stacking is in keeping with the greater flexibility allowed units in this game. It will have little effect on combat because only the top unit fights, even in shock combat.

14.0 COMBAT

There were several fundamental problems with the combat systems in original game. One of the biggest was not so much the limitation of combat to just two forms, fire and shock, but to their dispersal in two segregated phases. Combined with the convoluted sequence of play, it created a fits-and-starts flow to the action. A particular problem was allowing a player to decide on initiating shock action long after a unit first became embroiled in combat.

Another key problem, as noted earlier, was units were not required to return fire against an immediate attacker.

All this is changed. Players now have a variety of tactics to employ, each a different mix of fire and shock. Flexibility is limited both by locking units into combat against a chosen opponent, and by requiring the choice of tactic early in the process. The combat procedures bring all aspects of combat together in a common structure, one we found during playtesting to be easy to master.

14.3 STEP 5: CAVALRY RETREAT AFTER COMBAT

The cavalry retreat after all combat reflects the speed of cavalry, which generally could depart the area so quickly they could not be trapped (Kellerman's *Cuirassiers* at Quatre Bras being an example, though they certainly took their lumps).

15.0 FIRE

The Fire Combat Results Table in OWV was damnably clever and I jettisoned it with great regret. Not that it was perfect; I thought there was too big a gap in results between the first and second columns and between Target Classes 1 & 2. My initial redesign used a modified form of the CRT with additional firing lines and target classes. A second iteration replaced fixed casualties with a number of dice to be rolled.

It was only a minor step from that point to the final system in this game, replacing the table with a schedule to determine the number of dice rolled. As Davis said of his design, my combat resolution process came early in the redesign and is one of the features I like best about it. Melding losses and morale results into a single throw requiring no table is intuitive and will take almost no time to master.

One of the essential flaws with the morale-check-after-casualty mechanism of OWV is that it bifurcates the two factors, when in reality they are simultaneous. Some units stood their ground despite horrific casualties (this can be shown in OWV, though less likely as morale diminishes with casualties), while others ran after suffering few or no losses (this cannot be shown in OWV, though morale-only results were added in *Monmouth*). Both combinations now are possible.

As discussed below in the reaction rules, the most difficult part

of designing a tactical game is to account for the fact that opposing units are acting simultaneously despite a sequence of play that necessarily requires alternating action by the players. Nowhere is this more important than in opposed (returned) fire combat—in modern terms, a firefight. Games generally allow one player to fire first, either sequentially (usually defender first) or due to some inherent superiority of units. In that sense, OWV broke the mold with its alternating fire.

In actuality, the attacker often fired first, and firing first was not always an advantage. Opposing sides actually hoped to entice the enemy to throw away fire too soon, enabling the other to close the distance and deliver a more effective first fire. (This was brought to its logical conclusion in a possibly apocryphal story from Fontenoy in 1745, where British and French commanders each publicly invited the other to fire first. For a truly notable example, consider Cleburne's ploy at Perryville: he had his skirmishers and standard bearers breast a rise to draw Union fire, whereupon his main line advanced to deliver a point-blank volley while the Yanks were reloading).

The timing of opposing could not be built into the combat system without creating an involved routine to determine who fired first, and probably unfairly reward the first fire. In lieu of such a routine, combat strengths include fire discipline, embodied in the fire routine by the extra die for superior strength.

OWV's dreadful ammunition rule (OWV 11.6) has been eliminated as unnecessary. The number of shots allowed each battery was far too low, especially given the lack of any resupply provision. Batteries at Waterloo, particularly the French grand battery, fired all day long. Worse, the player knows exactly when each battery will run out, leading to a too-studied calculation of artillery fire (yet another case where too much information available to the player leads to ahistorical activity).

As for skirmisher ammunition, that rule was put in place solely because Baring's KGL battalion in La Haye Sainte ran out of rifle ammunition before the final French attack. (I think it was a bogus claim; Baring's command had been more than doubled by reinforcements through the day, so there should have been plenty of men in the farm with ammunition, even if the riflemen had run low.)

There were instances where a particular battery ran out of ammunition, or more specifically of a particular type of ammunition (canister), but for the most part batteries stayed in line until forced to retire due to casualties. Actual ammunition shortages were temporary, local, and entirely outside the army commander's (player's) control; they should be thought of as part and parcel of the various casualty, disorder, retreat, and fortune of war outcomes.

16.0 SHOCK

I designed the fire combat system first as it is the most ubiquitous form of combat. Davis noted in his design that the elegance of his fire system could not be ported to his shock table (though I thought it could have been greatly simplified by treating odds as just another modifier, something incorporated into my first iteration of a shock table). My fire system worked just as well for shock, needing only some changes to the dice throw schedule, mostly giving more weight to morale factors.

16.5 CHARGE

The cavalry charge rule in OWV was a great deal of fun but needed some modification. In particular, the separation of the declaration and resolution of charges, with enemy movement in between, just gave defenders too many options. In reality, the key element of cavalry charges was the *compression* of time, giving the enemy no chance

24.1 EXPANDED DESIGNER'S NOTES

to prepare: charging cavalry covers 600 yards (the size of the OWV charge zone) in two-to-three minutes, barely enough time to form square or prepare a volley.

Another addition was cavalry wave combat, which I thought necessary due to the more rapid pace of cavalry actions. In combat, cavalry did charge in successive squadrons, being taught to peel away after the initial impetus was spent to make room for the next squadron.

I did away with the special defender morale check during cavalry charges, but the need to check morale when making a reactive formation change amounts to the same thing. Saturating a sector populated by defenders not in square with charging cavalry will have the effect of causing considerable disorder and probably some routs.

One common house rule to OWV was the addition of a “blown” status for cavalry units to prevent them charging continuously. This was an excellent addition, but has been subsumed into the more varied disordered status in this game.

Finally, infantry charges: why not? It offers yet another permutation of fire and shock, in this case trading away fire to gain momentum.

17.2 STEP LOSSES

Step losses are applied in a straightforward manner and will not be foreign to most gamers. Two nuances that may take some getting used to are using stacked units to absorb losses and applying disorder results “earned” by an eliminated unit to others stacked with it.

17.3 DISORDER

The disorder continuum (for lack of a better term) is intended to reward success and intelligent targeting of weakened units, something quite possible on a real battlefield; the number of casualties and stragglers would be visible to opposing units.

The retreat rules themselves are fairly standard, but using friendly reaction zones to define a safe haven adds permutations not present in OWV (I drew heavily on my *Musket & Saber* series). Supporting units are a must: no general on a Napoleonic (or any other) battlefield would have considered sending a unit into action without providing support to protect its flanks and succor it should the fight go badly—D’Erlon’s deployment for the grand assault was a glaring exception and paid the expected price. I wanted the retreat rules to make clear the purpose for doing so. Cavalry often was used often for this purpose, reflected in its deep reaction zone.

17.8B CAVALRY RECALL

One of Wellington’s laments was that “a single British squadron could beat two French, but four French squadrons could beat eight British.” The inability of British cavalry to pull up after the first impetus of a charge was a great contributor to the problem, and is built into both the recall ratings and the generally greater number of French leaders.

18.0 REACTION

The hardest rules to write, bar none, were the reaction rules. Like stacking, reaction necessarily must take into account the simultaneous and fluid intersection of multiple units and actions during a necessarily segmented sequence of play. The critical aspect of this is how much reaction may be carried out by a stationary unit.

Davis went with the multiple phases. As noted, I rejected that approach, but working up a replacement was a long, hard slog. After much experimentation, including the addition then deletion of separation reaction phases, I folded most reactions into the combat

procedures. The most important result was the addition of return fire, making firefights truly one-on-one contests.

19.0 FORTUNES OF WAR

Another of my favorite game design tools, FOW reward success (I call it the “snowball effect”). They add chaos without the need to resort to a separate phase, or a random chit draw, or a table. Many aspects of OWV have been brought together in the FOW: ammunition depletion, leader casualties, morale checks after nearby routs, plus the new effects based on disrupting the army’s command infrastructure (see 22.0).

One particularly happy outcome with FOW was allowing me to jettison the morale-check-after-nearby-rout process in OWV. While there certainly was some degree of communicability of retreat or rout, it was by no means universal. It also added to the tedium of the game, and was hamstrung by being checked only when a unit of equal or higher class (morale) retreated. Short of units like the French Guards, it is unlikely a unit would know the putative quality of an adjacent unit during the chaos of battle.

20.0 LEADERS

One of my basic design philosophies is that every unit has leaders able to make basic decisions for it. Leaders, HQ, and other game mechanics should enhance performance rather than enable it. For that reason, neither leaders nor command points (21.0 & 22.0) are necessary for units to move or enter combat. An uncommitted organization, however, leaves behind a crucial force multiplier.

I also detest radius-based command structures, paradoxically because they give too much control to the players: they know exactly where each unit and leader is, so can manipulate deployment to keep the army’s nervous system intact.

Each army has a different arrangement of leaders. The Allies are the least articulated, with each brigade having one commander, assisted by a brigade major. French divisions nominally were divided into two brigades of (usually) two regiments. As a practical matter, the deployment within the division seems to have been quite flexible, with the brigade commanders acting as the modern equivalent of assistant division commanders.

Prussian brigades had a commander who supervised sub-commanders for infantry, artillery and (when attached) cavalry. The *Infanterie Kommandant* was usually the senior regimental commander, though a brigade commander had the authority to appoint one of the other colonels if desired. All three regimental commanders are included in the Prussian brigades in this game; my reading indicates all took part (see the Orders of Battle notes on page S18). This was yet another way in which the countermix is used to present doctrinal and organizational differences rather than writing special rules for each.

Commanders die: that is an unavoidable fact of battle. The difficulty in designing a rule to reflect that fact is that if the commanders die too easily, players will keep them out of harm’s way. If they are too hard to kill, the loss of a leader becomes too much a matter of chance, and once again players will refrain from using them historically. My solution was to make them relatively easy to kill, but with most having replacements. Over time, however, a unit will lose its leaders and an important combat edge.

21.0 COMMAND & 22.0 ARMY MORALE

Command emphasis, as any veteran will attest, creates results, but there’s only so much to go around. This became a prime directive for me after watching OWV at a convention; the entire French

army surged forward on turn one, creating an ahistorical blue wave engulfing the Allies. My fix is command points, which limit the number of major orders (activation, etc.) each turn. Only gradually will an army reach full flood.

Army infrastructure, its “tail,” is one of the weakest aspects of OWV (indeed of many games). In this game, the relative immobility of HQ and trains precludes wild maneuvers (like shifting the entire French army left around Hougomont), and forces players to secure their flanks and rear.

One of the first OWV features I jettisoned was its army morale rule, which combined fatigue (measured hourly by brigade commitment) and losses into a single numerical measurement. Each step loss reduced morale by one, and each brigade committed reduced it by one. When the army level reached zero, it broke.

Over and above the onerous task of keeping track of losses (anathema to me), the mechanic gives each army a bright line morale limit known to both players. It also was a magic number; there was no effect at all until the number was reached, when one more loss, just one more increment of 100 men, turned the army into a beaten force.

It also made no sense for this number to influence the activity of individual units. A unit really was aware only of its immediate losses and situation; its only experience of other units would be seeing them advance or retreat, which was not always possible because of smoke and the vagaries of the ground.

Tracking brigade commitment was a good attempt at modeling army fatigue, but the morale cost was nominal (the entire French army could be committed for seven hours without breaking its morale). There also was no limit to how many brigades could be committed or de-committed at one time (enabling the aforementioned blue wave). Also, the idea that some units resting in the rear can help keep committed units going is ridiculous.

I rely instead on the accumulation of individual unit failures. Organizations in action too long will weaken, opening the way for more emphatic failures in combat. The fortunes of war are an essential component of this as they cause morale failures to snowball. An army doesn't break all at once, but crumbles organization by organization, a better representation of disintegration and defeat than a black-and-white line.

23.0 HIDDEN MOVEMENT

Hidden movement simply is a must at this scale. Knowing what was on “the other side of the hill” was (and remains) of vital concern on any battlefield. One of the general downsides of board games is the nearly perfect information available to both players as to where and how strong an enemy is *or isn't*. The purpose of this module is to introduce an element of uncertainty into the games. This is not intended to be a complete lack of information or any kind of double-blind system. The intent is to create a situation where one or both players must divine some portion of the enemy's disposition or plans. If it causes a single turn's hesitation in the release of reserves, or the diversion of a single formation to deal with an as yet unrealized threat, then it has achieved the desired outcome

25.1 ANATOMY OF A BATTLE

The player notes in the rules are not a shortened version of a longer file, but only introduce the multi-layered approach you must bring to the game to achieve success. I expand on that here. To start, I identify four layers—though of course this pie can be sliced and diced any number of ways—and the time component of each.

1. Mechanics requires a thorough knowledge of how individual units operate on the game map. Each mechanic is in itself simple enough, and most I think are intuitive. The basic forms were covered in the examples on rules booklet pages 14-15 and 20-21, though they could be expanded almost infinitely. Mechanical decisions are made each time a unit moves or fights.

2. Tactics is the knowledge required to piece together the actions of individual units to gain or retain control of a particular hex or destroy a single enemy unit. The potential combinations of arms, formations, timing, etc. is also nearly infinite. For the most part tactical decisions must be set up during a single movement phase and executed during the following combat phase, but frequently it will take more turns to get units into position to maximize their effectiveness.

3. Grand Tactics (which most of us know better as “operations”) involves the handling of many units in a cohesive way to gain control of a larger area on the map. This is discussed at 5.0 in the rules booklet, but I will emphasize it requires a view multiple turns ahead, taking into account the likely outcome of current combats.

4. Strategy is the overall plan designed to achieve victory on the battlefield. The objectives for each side are designed into the scenarios, but players have many options on how best to reach them. This is something best decided before the game starts, but a good strategy will have branches allowing for actions after different enemy responses.

Each layer builds on the earlier ones, but they are all interconnected: poor understanding of unit mechanics will sabotage even the cleverest strategy.

The following discussion is built around a proposed French plan to win the battle and the game. I choose the French not because I am a Franco- or Napoleono-phile but because the French have the initiative in the early going. I do not pretend it is a perfect plan or even a good one, but it will I hope show the interrelationship of the various layers of decision-making needed.

25.1A THE SITUATION

The situation facing the French at 1100 on 18 June is built into the game. Napoleon confronts Wellington’s comparably-sized but inferior Allied army in rolling terrain punctuated by woods and chateaux. Off to his right, an indeterminate number of Blücher’s Prussians have arrived with more coming up in a steady stream. He cannot defeat both simultaneously. Time is not on his side in the long run, but it is on his side for the moment; Blücher cannot intervene in strength for several hours, giving Napoleon a window of opportunity to defeat Wellington. If it can be done quickly, the French can then turn on the Prussians. Alternatively, if the Prussians strike early, the French can fend off the Allies and smother the Prussians.

25.1B NAPOLEON’S PLAN

Napoleon’s historical plan was a good one and I have used it as my basis. The Allied deployment is skewed west—their center and right—both because they protect the direct route to Wellington’s bases, and because Blücher is expected on the left. As a result, the Allied line along the ridge from the crossroads (hex 1844) to behind Papelotte is

thinly held, with five infantry brigades (only the British 8/5 and 9/5 being “first-string” organizations) and three batteries. Total strength is just 10,500 infantry and 20 cannon.

It is backed by three excellent cavalry brigades (4,000 troopers in 27 squadrons, with two more batteries), but these units are far from their headquarters and will be slow to activate. The flanks are secured by the fortified farmhouses of La Haye Sainte and Papelotte, but neither is held in enough strength to form an offensive threat to the flank of French units attacking the ridge.

Against this, Napoleon threw his entire First Corps, 17,000 infantry, 1,500 cavalry, and 46 cannon, reinforced with at least 16 more heavy cannon and a small brigade of heavy cavalry (the 375 men of 2/13c). The idea was to seize the ridge, which would effectively sever any connection between the opposing armies, then turn inward to crush the Allies.

It failed, but not by much. The French infantry mounted the ridge in dense columns (close columns in game terms) and succeeded in pushing back the Allied infantry. The three main columns were struck with a perfectly timed attack by British cavalry, a single regiment breaking up a column. Allied infantry returned to the fight and First Corps was broken up and driven back down the slope.

25.1C MY ANALYSIS AND PLAN

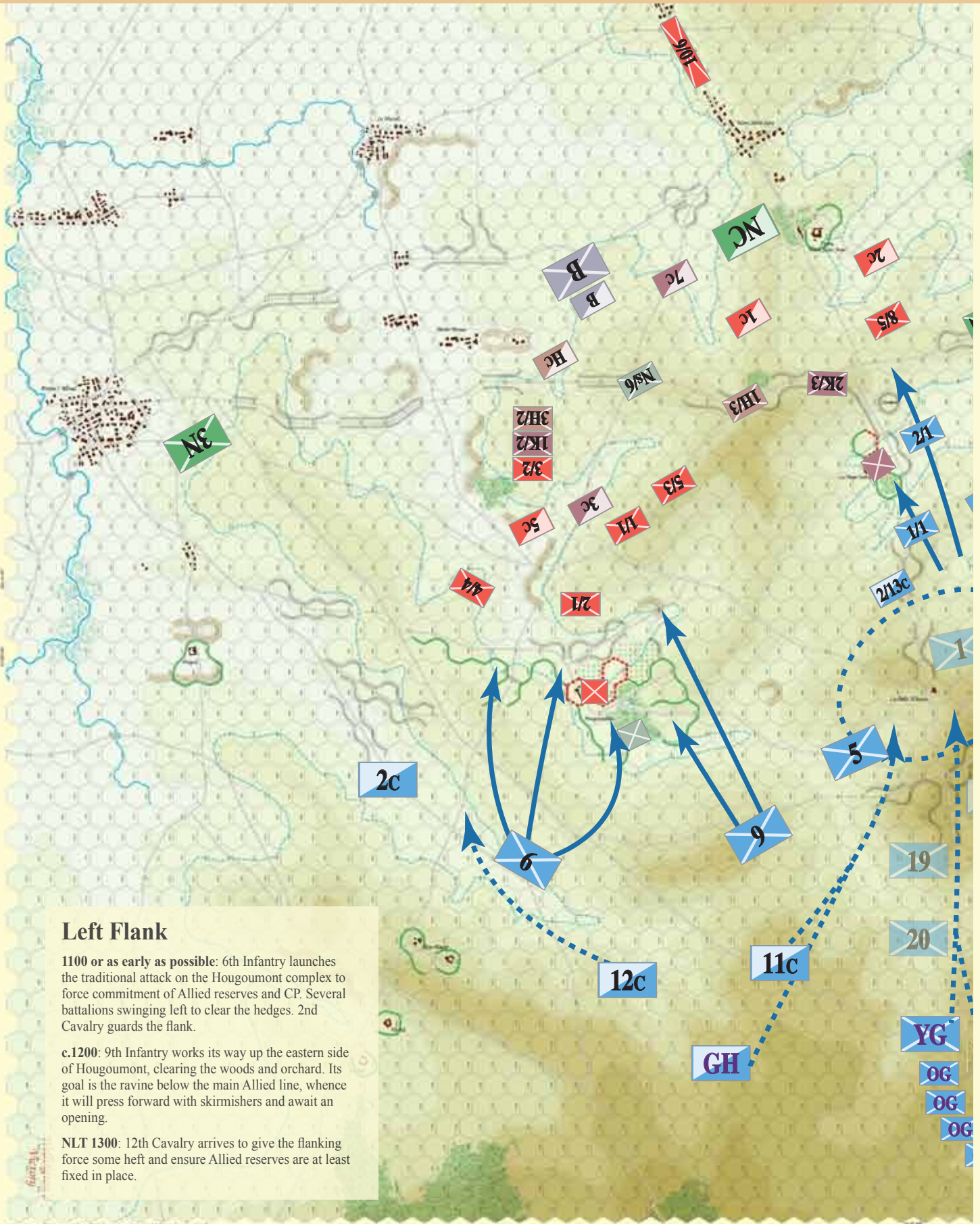
The problem was not in the plan or even in the adoption of dense formations, but in the inadequate support provided for First Corps. No artillery accompanied the attacking columns though at least four horse batteries were available. Worse, only a pair of cavalry brigades went along, and they were stationed outside the corps’ flanks. Three whole divisions of cavalry stood idly just a few hundred yards behind. Inexplicably, not a single battalion was held in reserve by any of the experienced generals in the corps, nor did Napoleon shift any of his reserves into position to follow up the expected success.

Any change in the disposition of the attacking columns could have prevented the complete success of the British cavalry. The attack might have met with a temporary reverse, but the fight for the ridge would have continued and the larger plan would have remained intact.

I have chosen to follow the same overall strategy with two important changes. First, a substantial number of cavalry will accompany each of the attacking infantry divisions. Second, the bulk of the reserve units will be collected near the French center to exploit success or recoup a failure.

Pages 12 and 13 illustrate more detail on the plan and deployments. The deployment of a single column is examined in detail on pages 14 and 15, emphasizing the coordination of multiple arms and formations, and the way in which units can be deployed for mutual support. Finally, page 16 includes an illustration of what is to happen next.

25.1 ANATOMY OF A BATTLE: PHASE I



Preparing the Main Attack

by 1200: Heavy artillery and most of 1st Corps artillery form a grand battery on the small ridge south of La Haye Sainte and begin pounding Allied batteries. Skirmishers from 1st, 2nd, and 3rd Infantry press forward.

by 1300: a brigade from 1st Infantry begins sealing off La Haye Sainte, and a brigade from 4th Infantry prepares to assault Papelotte. Taking either is not essential (though expected), but they must be sealed off to prevent any threat to the flank of the main assault. 1/1 Cav and 3/13L screen Frichermont and Smohain.

Main Attack

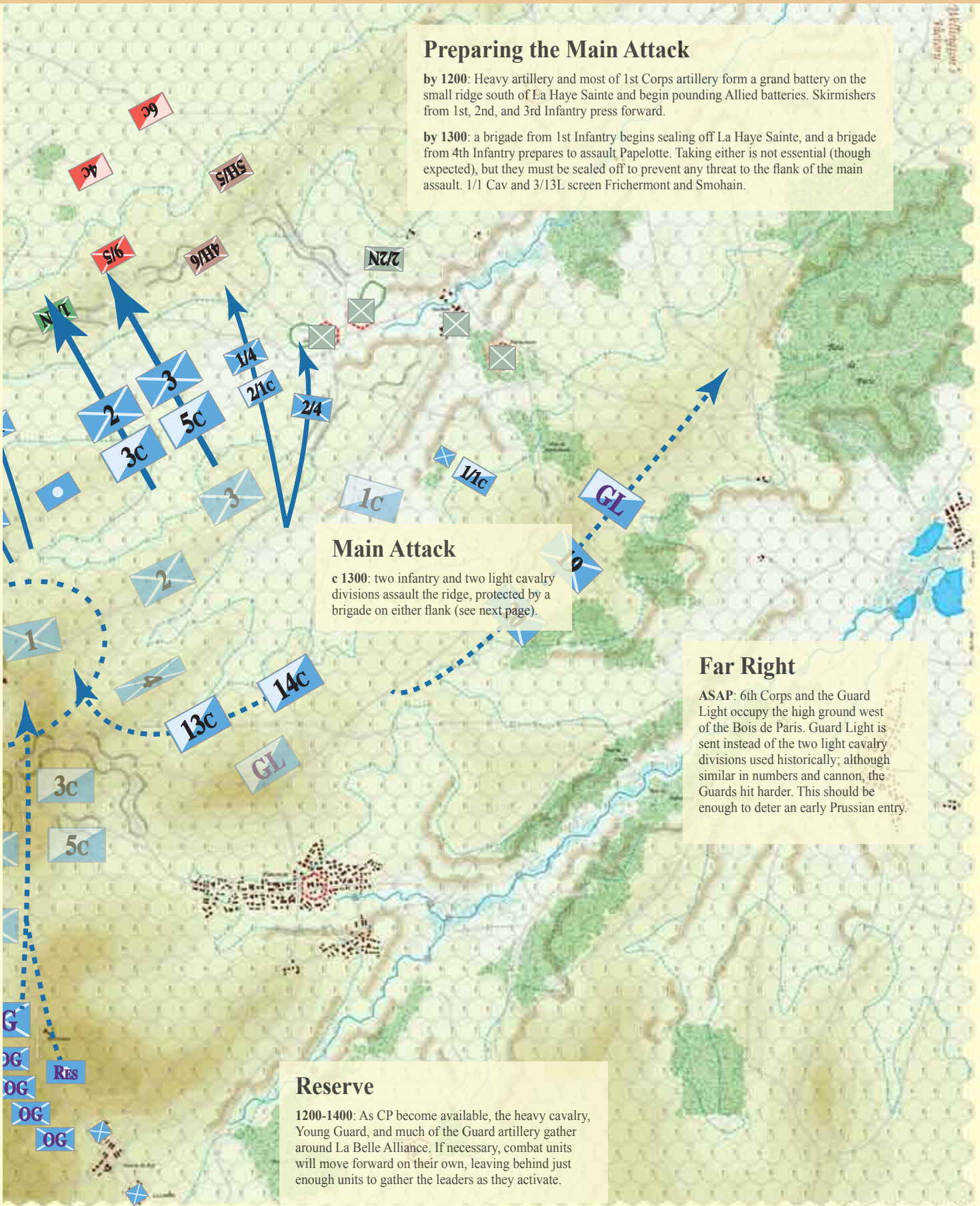
c 1300: two infantry and two light cavalry divisions assault the ridge, protected by a brigade on either flank (see next page).

Far Right

ASAP: 6th Corps and the Guard Light occupy the high ground west of the Bois de Paris. Guard Light is sent instead of the two light cavalry divisions used historically; although similar in numbers and cannon, the Guards hit harder. This should be enough to deter an early Prussian entry.

Reserve

1200-1400: As CP become available, the heavy cavalry, Young Guard, and much of the Guard artillery gather around La Belle Alliance. If necessary, combat units will move forward on their own, leaving behind just enough units to gather the leaders as they activate.



25.1 ANATOMY OF A BATTLE: DEPLOYMENT DETAILS



The graphic on the left shows the main attack described on the previous pages. Markers are shown at half size for clarity. Collectively the four divisions have a strength of

- 8,525 infantry in 16 battalions (36 counters)
- 2,200 cavalry in 20 squadrons (17 counters)
- 12 cannon in 2 horse batteries up front
- 32 cannon in 4 batteries (half of them heavy) on the ridge behind

This gives ratios of 258 cavalry and just over 5 cannon per 1,000 infantrymen, with a good balance of skirmishers, grenadiers, shock cavalry (lancers), and heavy, light, and horse artillery.

They are faced by 13 Allied battalions (6,200 infantry), most of lesser quality, and 2 batteries with 14 guns (one of which has been depleted and disordered by the preliminary bombardment). Three cavalry brigades (27 squadrons) lay behind the front, but are far from their headquarters and likely will not all be activated yet.

The right column is shown here, but either divisional column could make the assault a success. Assuming the units on its flanks can tie up the Allies to their fronts, this column (8 battalions, 9 squadrons, 1 battery with 5,275 men and 6 cannon) have a good chance of overwhelming the British 9/5 Brigade (4 battalions, 1,350 men).

Having gained the crest, the column must clear hexes 1338-1539 to establish a new grand battery site (note 3rd Infantry's battery, 19/6, limbering in hex 2237 to begin the shift forward). The left column also has a battery site objective, and either will serve as a base for subsequent movement.

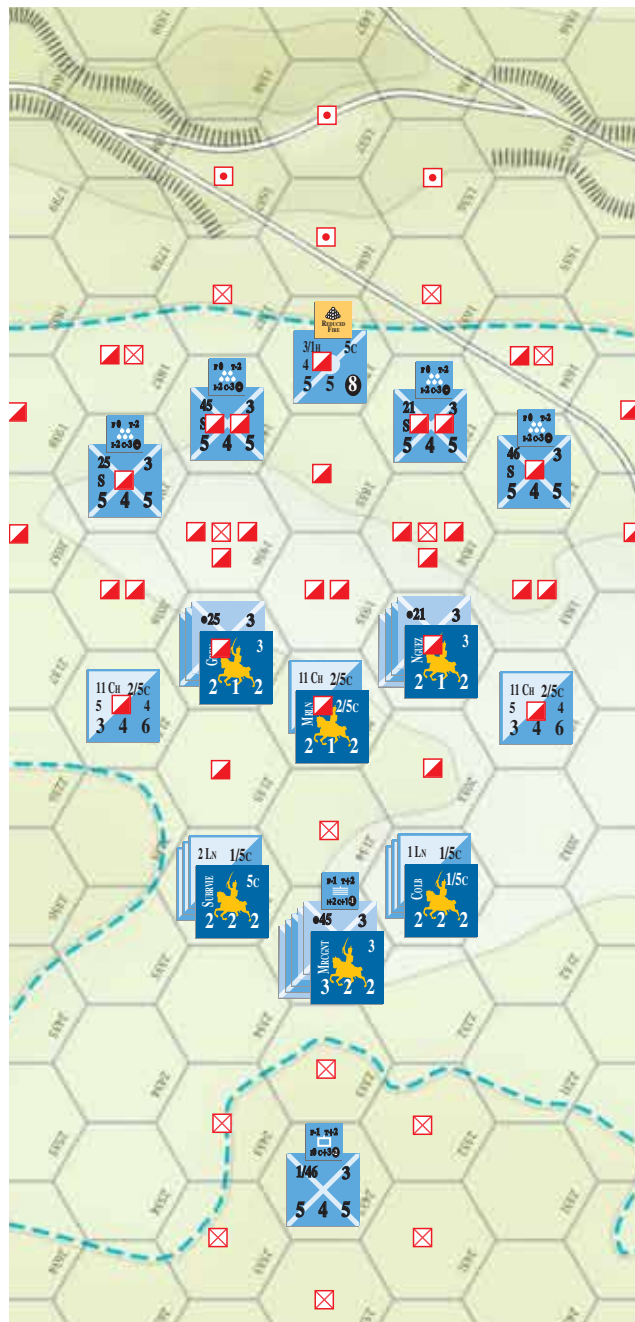
The column is arranged in four lines for flexibility and security.

1. The Skirmish Line is composed of the combined light companies of all four regiments and the horse battery from 5th Cavalry (at reduced fire owing to unlimbering). This line has an overwhelming strength advantage because the Allied units opposite are short of skirmishers, so should be able to push forward to fix the defenders in position.

2. The Support Line has the three squadrons of 2/5c bracketing the two 3rd Division brigade leaders, each of whom commands a single regiment of two battalion centers and its combined grenadier companies. The cavalry provide reaction zone cover (see graphic at right) to the front line, and can charge if the Allies try to fight forward with skirmishers. The infantry stacks—fast because of the leaders and flexible because all units are in column of divisions—can be used to reinforce the skirmish line, attack any lone Allied units (especially once they are disordered by the skirmishers), and/or form a solid line. The latter, across the entire front or just half of it depending on the situation, will provide a solid base of maneuver for the final assault.

3. The Main Body is composed of the division commander with three battalion centers and the combined grenadiers of the remaining two regiments in close column formation, flanked by the two lancer regiments, each with a leader. Within two turns of combat, the front lines will have caused casualties and created a weak point in the Allied line. The Main Body will be directed (quickly, again because of the leaders) to hit it with overwhelming strength. The lancers are ideal for the purpose, having high charge values, good recall discipline, and decent combat strength for defensive fighting. The infantry column can drop off units in line as it advances; if done in the breach, the units can pivot to roll up the Allied line in both directions.

4. The Reserve is a lone battalion in square, following (slowly). In case of disaster (like that which struck the historical attack), it will

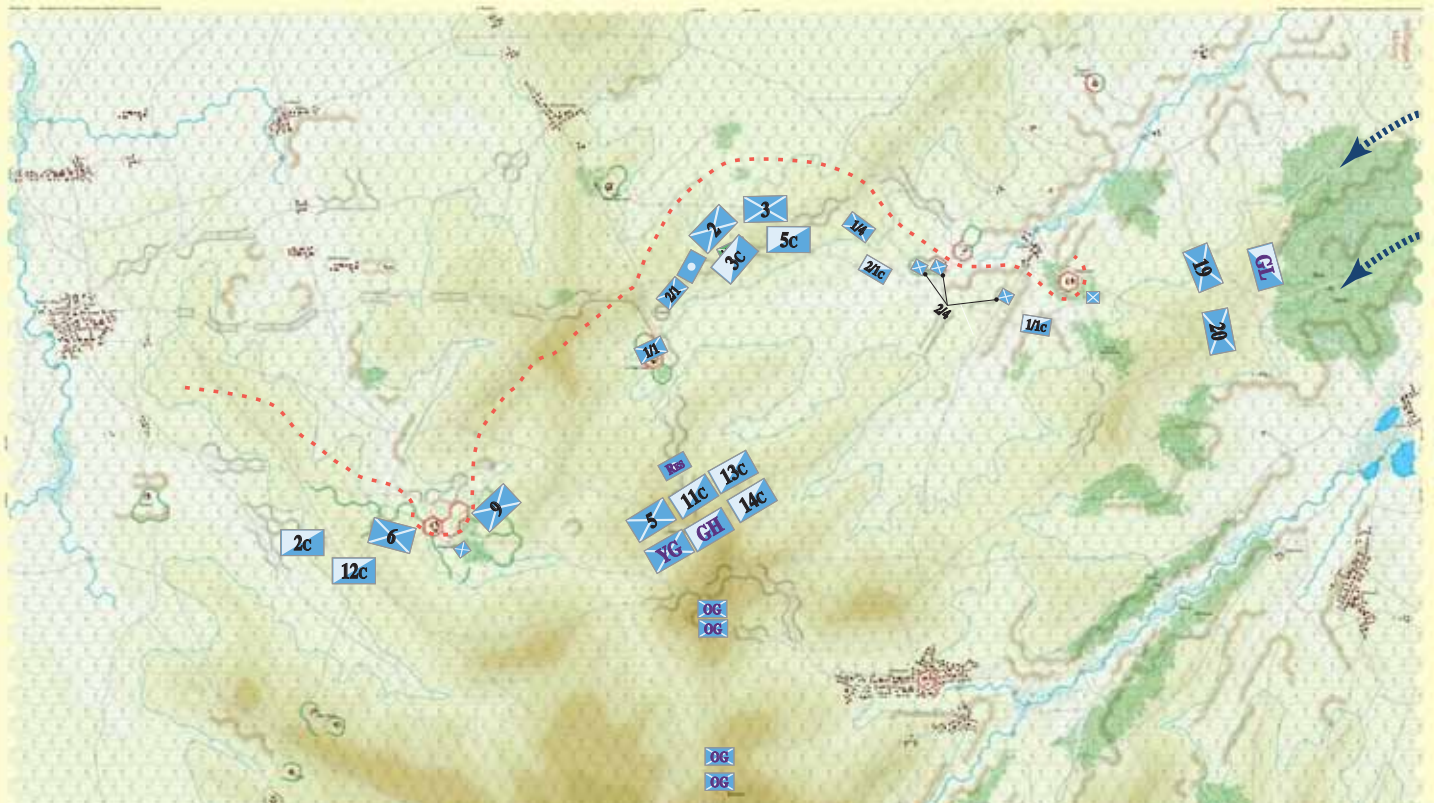


The red-and-white boxes show the interlocking reaction zones in 3rd Division's sector (other units removed for clarity). Note nearly every hex is in the RZ of at least one unit, as is every unit in the first two lines. The arrangement provides multiple safe retreat routes if necessary, and provides for reaction by fire and/or charge to maintain the cohesion of the line.

provide a rearguard and rallying point. If the attack succeeds, it can redeploy to take up the fight while the other units mop up resistance and recover from disorder.

The deployment pictured here emphasizes the combination of arms and formations to pose serial threats to the defenders, and mutually supporting positions to prevent any French units being isolated and overwhelmed.

25.1 ANATOMY OF A BATTLE: PHASE II (BY 1500)



If all goes according to plan...

1. The Hougomont battle should be raging. The key here is to press forward strongly enough to force commitment of Allied reserves, but keeping the battle narrow enough that the infantry divisions can rotate units out of the line and sustain the fight.

2. The main assault force should own the ridge, with the grand battery displacing forward to form a pivot of maneuver (shown here in the 2nd Infantry Division lane).

3. If the Prussian threat is serious, Lobau's force should be able to keep them occupied for a couple of hours. If the Prussians have not yet entered, or if they have been beaten back, 20th Infantry and a few squadrons will be left to buy time while Lobau swing the remainder north and west.

4. The reserve can strike northwest into the Allied center, due north across the ridge, or east at the Prussians, depending on the situation. The critical point is to use it *en masse* rather than dissipating it to resolve local crises.

26.5 BUILDING A BATTALION

This section is included to describe the process I used to create the counter counts and strengths for each unit and unit type. The base data set is incorporated in my Order of Battle booklet available online at DG. This page gives some background to the methodology, and the following three pages give concrete examples for particular units and nationalities.

26.5A WORKING NUMBERS

OWV used a consistent 100 men per combat strength point for all units. After much experimentation I found 150 to be a better fit and used that for infantry. That number would have given too little granularity to the cavalry, so I went with 75 troopers per cavalry step, which worked perfectly as an average full-strength (two-step) squadron was right around 150. Artillery battery crews worked out to between 15 and 25 men per gun, counting ammunition handlers, farriers, and so on, which would give 100 to 150 men for a six-gun battery (which I used as my standard; see below).

The steps given each unit reflect an abstracted combination of numbers and morale. As noted in rule 5.3, I consider each step lost to account for between 50 and 75 infantrymen, or 25-40 cavalry- or artillerymen, actually hit. The rest of the “step” is temporarily absent from the ranks, having run away or gotten lost or helped a wounded friend to the rear. They become available again when the unit reorganizes (21.3B).

Those basic numbers could be altered with respect to a particular unit. Better-trained, -experienced, and -disciplined units (e.g. the Old Guard) are presumed to have fewer men go absent from the ranks when others are hit; they are more likely to take those losses in stride and keep fighting. They therefore get additional steps, allowing them to stay in the fight longer after a given number of casualties.

I reserved the right to do the opposite for poor units (e.g. the Hanoverian *Landwehr*), giving fewer steps on the assumption more men would run. For the most part, though, I found the lower morale ratings, particularly after step losses, caused whole units to break and run, which essentially accomplished the desired end.

26.5B INFANTRY

The standard infantry unit in all armies was the regiment, which generally had a permanent home station. It would be composed of companies which were formed into battalions. In most Continental armies, the battalions of a regiment would serve together. The British and a few others had each battalion serve separately.

OWV used one counter per battalion regardless of strength, which not only led to great disparity of strength but forced the inclusion of extended lines to account for spacing. Most battalions are now spread across two or more counters, each of one or two steps. In addition to letting me dispense with strength markers, going to steps allowed me to manipulate the combat strength, morale, and specialist ratings (including irreplaceability), giving me tremendous flexibility in presenting the specific characteristics of different armies and units.

The differential between factors on the front and back of a counter, or between different counters of the same battalion—reflects a unit’s depth. A battalion dependent on a thin veneer of trained or experienced men (militia) will fall off more rapidly in combat than one with better general quality (Guards).

The first counter in each battalion is its “center” (my terminology, purely for convenience). Additional counters are “wings” (again, my term). Wings usually have a slightly lower combat strength, since I consider the battalion commander and better officers to be with the center. Some wings I considered “supernumeraries,” representing

extra manpower without the extra officers and NCOs to make them a cohesive fighting unit. As a rule they have both lower strength and lower morale than the center or other wings.

Specialist units like light infantry or grenadiers might get a counter, but only if their numbers were sufficient to justify at least one step. In several cases over the next pages, they are created by combining specialist companies from multiple battalions.

Multiple counters allows historically accurate flexibility in deployment such as skirmish or garrison detachments or covering a wider front (i.e. extended lines). French regiments and Prussian brigades benefit in particular, as noted on the following pages.

26.5C CAVALRY

Like infantry, the standard permanent cavalry organization was the regiment, divided into companies (sometimes called troops, which will be used here for clarity). For combat purposes, troops were paired (usually) into squadrons of roughly 150 men. That size was not arbitrary; it represented the number of horsemen who could be deployed on a piece of ground the same size as an average infantry battalion, and, like a battalion, could be controlled by a single voice. Not surprisingly, it was the squadron, not the regiment, that formed the standard cavalry unit of maneuver.

For that reason, I have chosen to represent cavalry as squadrons. That also makes possible leveling the huge size difference between regiments, such as the lone squadron of Brunswick *Uhlans* versus the 1,200-man *Chasseurs of the Guard*.

As with the infantry, qualitative issues can be incorporated not only front to back, but also with what amount to supernumerary squadrons. The *Chasseurs of the Guard*, for example, had five actual squadrons, but need 18 steps to represent their numbers, so each actual squadron gets a lower-rated supernumerary squadron as a backup.

This presentation serendipitously works perfectly to show actual practice in combat. Squadrons were only semi-permanent; troops frequently were rearranged and even divided to keep squadron strength consistent. A squadron counter in this game therefore does not necessarily equate to a single historical squadron.

26.5D ARTILLERY

Each battery consists of a single artillerist company (just beginning to carry the official designation of “battery,” again to be used consistently here for clarity). Some batteries, notably the French, belonged to artillery regiments, but the regiments were administrative and training organizations only; on campaign each battery served independently.

No distinction has been made between six- and eight-cannon batteries because of the howitzers attached to each. Useful for a variety of purposes, howitzers lacked the killing power of the guns. A six-cannon battery would have five guns and one howitzer, an eight-gun battery six and two, respectively. There just wasn’t a significant difference in actual firepower. What difference does exist, and that includes difference in gun weight, is built into the combat strengths and superior relative strength on the reduced side. The inclusion of French howitzer detachments, an actual practice, also helps spread the generally greater strength of French batteries.

26.5E FRENCH INFANTRY REGIMENTS

This is the regimental structure as of 1808. As depicted at the top, the regiment nominally took three battalions to the field, leaving a depot battalion at the home station.

The field battalions consisted of six 140-man companies, four of the center (fusiliers) and one each of light infantry (voltigeurs) and grenadiers. The depot battalion would have (nominally) four center companies only; actual strength varied with the availability of recruits.

Light regiments were identical in every respect to Line regiments, except they wore blue trousers instead of white, and the companies had different nomenclature. The differences were cosmetic and nominal for all practical reasons: officially elite units trained for open order fighting, they probably were no better at it than the average line unit. Words matter however, and the self-described elite status did give the light units a bit more *élan* in action.

The field regiment generally served as a complete unit, though there are instances of individual battalions serving apart. In 1806, many French regiments used their third battalions to flesh out the other two, the remnant being sent home to recruit. The line regiments at Waterloo were woefully understrength, averaging just over 1,000 men in two battalions rather than 2,500 in three. Light regiments tended to be stronger.

The depot battalion would periodically send forward a detachment of replacements. These generally were formed with other regiments' replacements into ad hoc *battalions du marche*, to be split up on reaching the field army. In the opening (1808) stage of the Spanish campaign, some regiments stationed in Germany formed one or two new field battalions for service in Spain, and *battalions du marche* were combined into provisional regiments. Most of these were later renumbered into entirely new regiments.

Standard French practice in the field appears to have treated regiments as administrative rather than tactical units, with the brigade commander deploying the battalions individually. The regimental commandant became effectively an assistant brigade commander.

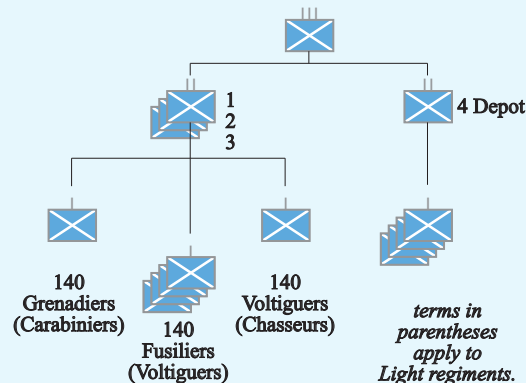
Light companies were routinely grouped at the regimental level. Grenadier companies could be grouped, or left with the battalions, or combined with the light companies. In the 1806 reshuffling, the light and grenadier companies of the third battalion generally remained with the regiment as a small elite demi-battalion.

My first task was to calculate the number of steps, done by dividing the actual regimental strength by 150. Rounding was done more or less normally—rounding up remainders of 75 or more—but I tried to smooth totals across divisions and corps. Most line regiments ended up with six, seven, or eight steps, examples of each presented to the right.

The first counter formed was generally the regimental light detachment, which I always tried to make two-step. Battalion centers were next; where there had to be an inequality, I always filled the lower numbered battalions first (purely an arbitrary decision on my part). A regimental grenadier detachment followed if there were enough men. Any extra steps became supernumeraries. Really small regiments (e.g. 85th and 108th) were more of a problem, but I always included at least one-step battalion centers since the battalions were actually fielded. I considered adding a full-strength side to give players the option of combining battalions, but it would have been ahistorical.

The final counterset at the bottom shows a full strength regiment. The regimental commandant is included to add extra leadership, though for just own regiment. The combined grenadiers are not irreplaceable (they are actually underrepresented in counter terms). The regiment should have only 17 steps numerically; one extra is added arbitrarily to reflect a robust organization.

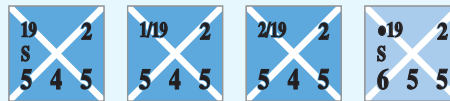
French Regiment (nominal)



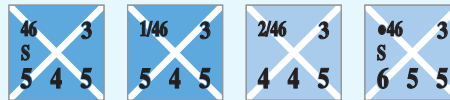
55th Line (1,150 men, 8 steps)



19th Line (1,025 men, 7 steps)



46th Line (900 men, 6 steps)



85th Line (625 men, 4 steps)



Nominal Full Strength (2,520 men, 17 steps actual, 18 steps shown)



26.5 BUILDING A BATTALION

26.5F PRUSSIAN REGIMENTS

The Prussian army, rebuilt after the debacle of 1806, adopted an entirely new structure, making a clean break with the traditional battalion and higher organizations used by virtually all armies.

A regiment was to consist of three field battalions. Its home station, in addition to possessing a depot used to train recruits and forward them to the regiment, would also raise reserve and *Landwehr* battalions and regiments able to take the field. This process, expanded over the next century, became the European standard for mobilization of a nation's manpower.

The field regiment would be paired with another to form a brigade, two or more of which formed a corps. Each brigade generally would receive one or more batteries and one or more squadrons from corps reserves. For the 1815 campaign, a surplus of regiments led to a third being assigned to each brigade, though some would be detached before the campaign began. In time, the third regiment would be transferred out, with brigades paired to form divisions.

In action, the brigade commander would appoint one of his regimental colonels (usually but not always the senior) as the infantry *Kommandant*. The *Kommandant* would command all the battalions on the front line, freeing the brigade commander to control the reserves and coordinate with neighboring units. The other regimental commanders would assist. For game purposes, I presented all regimental commanders, only the brigade commander and *Kommandant* having reverse sides (representing staff).

Regiments were not used as operational formations, the individual battalions being directed by the commandant or brigade commander. Battalions were formed of four large companies, also soon to become the European standard and already used by many non-Prussian Germans, including the British-controlled Hanoverians. Nominal

company strength was about 250, but there were provisions for the assignment of supernumeraries as a matter of routine, so could rise as high as 300. The average battalion in 4th Corps at Waterloo was 720, but among the regular regiments was over 800.

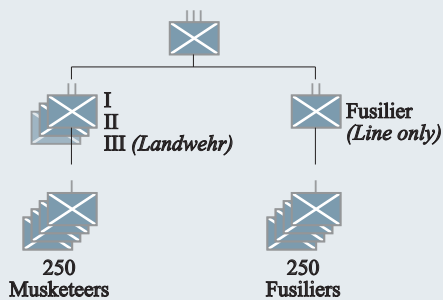
There were no separate specialist companies. Each regiment nominally had two grenadier companies, but these had long since been detached to form elite battalions and would soon become permanent separate regiments.

In lieu of light companies in each battalion, the third battalion of each regiment (denominated *Fusiliers*) were trained in open order fighting, as (officially) were all men in the third rank of the other two (musketeer) battalions. The actual state of training was mixed. *Landwehr* regiments, though officially upgraded to line standards on Blücher's orders, still generally referred to their third battalions as III Musketeer rather than *Fusilier*.

The Prussians routinely deployed battalions in a pair of two-company half-battalions, often mixing company pairs from different battalions to form a single column. It worked well and ensured an entire battalion would not be cut up in a single engagement.

Creating the Prussian counterset was actually quite easy. All battalions have at least two counters, though some are of one step only. Large battalions have three. In the musketeer (I and II) battalions of line regiments, I made the first step of each center battalion skirmish-qualified to reflect the presence of at least some men with open-order training. They are not irreplaceable, so can be maintained by using the battalion's wings to absorb losses.

I filled battalion counters in this order: center first step, wing first step, center second step, wing second step, supernumerary. When a regiment had an uneven number of steps, I filled F-I-II in line units, I-II-III in *Landwehr* units.



First Corps	Second Corps	Fourth Corps
12 Obergraven	5 Cardell	10 Lettow (K)
24 Laurens	25 Petersdorff	2 Neu LW . . . Braunschweig
1 West LW . . . Kleist (K)	5 West LW . . . Robel (K)	3 Neu LW . . . Schmalensee
	9 Schmidt	11 Funck (K)
	26 Reuss	1 Pom LW . . . Brandenstein
	1 Elbe LW . . . Bismarck (K)	2 Pom LW . . . Pawels
		18 Löbell
		3 Sil LW . . . Thile
		4 Sil LW . . . Massow (K)
		15 Creilsheim (K)
		1 Sil LW . . . Fischer
		2 Sil LW . . . Blandowski

Regimental Commanders at Waterloo
(K) indicates infantry *Kommandant*

10th Line (2,400 men, 16 steps)



2nd Pomeranian Landwehr (2,425 men, 15 steps)



2nd Silesian Landwehr (1,700 men, 11 steps)



26.5G LONE BATTALIONS

The advantage of working with regiments is it gave some scope for cross-leveling individual battalions to ensure the total number of steps and specialist steps was accurate. That became more difficult when dealing with organizations where battalions were separate units. The entire Allied army—save the Nassau regiments—falls into this camp, as did the French Guard and Prussian Jäger. Every battalion has its particular issues; some are illustrated by the units on this page.

- British battalions retained an organization almost archaic by 1815 standards, with 10 companies (8 center, 1 each light and grenadier), making presentation of the specialists a dicey proposition. Even large units like the Guards could only represent them by combining the elite companies; fortunately, that was the practice in the Guards (shown in the deployment at Hougomont). The largest battalion on the field, the 1,125-man *1/52nd Light*, was also one of the best, allowing its counters to reflect consistent quality and enable it to operate across more than one stack (see 6.3B in the notes).
- The smaller British line battalions presented more of a problem, since the individual elite companies would never be more than 40 or 50 strong. I resolved it by forming a flanker detachment for each brigade, also reflecting actual (though not universal practice). The brigade shown here was complicated by having the rifle battalion, which had to be kept separate. I “cheated” the flankers to two steps to reflect unit quality and possible reinforcement by grenadier companies.
- The Brunswick light battalion’s steps are straightforward numerically, but note only one counter gets the “S” rating, reflecting the inexperience of the battalions as a whole.
- Militia units, like the Osnabruck *Landwehr*, were fairly easy to represent since quality tended to be consistently low. Prussian *Landwehr* regiments do get a leader, reflecting the presence of experienced officers.
- The Verden Field Battalion gets an “extra” step to reflect unit quality, but it is present as a supernumerary counter so does not add much actual combat strength.
- The French Guard regiments appear similar to the line units, but with several distinctions worth noting. Old Guard battalions had only four center companies that could be larger than 140 men. They are all presented with “extra” counters to reflect their high quality. Paired companies were occasionally dispatched on particular missions (to Château Chantelet, for example) but battalion ordinarily stayed together. This does give the French player the ability to spread the Guards around, but I am hoping the desire to keep them concentrated for durability will prevent too ahistorical a deployment.
- The Young Guard regiments also had four companies, with no specialist units (though a fifth specialist company had been formed in previous campaigns). Once again, consistent high quality, including cadres from the associated Old Guards (Grenadiers for the *Tirailleurs*, *Chasseurs* for the *Voltigeurs*), allowed me to present the battalions straightforwardly.

2/2nd Guards
• 1,000 men
• 8 steps



1/28th Foot
• “360” men
• 2 steps



1/32nd Foot
• “450” men
• 3 steps



1/79th Foot
• “450” men
• 3 steps



8th Brigade Flankers
• 140 men
• 2 steps

1/95th Rifles
• 450 men
• 3 steps



3rd Light Bn
• 700 men
• 5 steps



Osnabruck LW (II/4 Hanoverian)
• 600 men
• 4 steps



Verden Field Bn (I/2 Hanoverian)
• 500 men
• 4 steps



12th Line
• 425 men
• 3 steps



3rd Grenadiers
• 1,150 men
• 9 steps



1st Voltigeurs
• 1,175 men
• 9 steps



ERRATA AND CLARIFICATIONS

RULES

14.1 FORMS OF COMBAT: DISENGAGEMENT

Clarification. A disengaging unit in the frontal hex of more than one enemy unit need not face a particular enemy unit to disengage.

Clarification. A disengaging infantry unit may fire only once even if faced by multiple defenders; each eligible defender may return fire.

Clarification. A disengaging cavalry unit may not be attacked by engaged enemy cavalry using reaction shock; it is considered departing cavalry per 18.3.

16.1C) COORDINATING SHOCK ATTACKS

Clarification. Coordinating units in shock actions do not advance; only the primary unit advances.

Clarification. Coordinating units in shock attacks add their combat strength to that of the attacker when calculating relative strength. [The strength of coordinating firing units (15.2D) is not considered; use only the strength of the primary firing unit.]

17.3E) CAPTURE

Clarification. Only the primary affected unit is captured. Units stacked with it are routed.

Clarification. A unit both eliminated by step losses and captured by reaching disorder level 5 is eliminated, not captured. Units stack with it are routed.

Design Note. Units “captured” through fire combat are presumed to be so badly scattered they are out of action for the rest of the day and are spreading tales of woe to the rest of the army. An example of this would be allied stragglers in the Forêt de Soignies north of the battlefield (though as noted in the OB, it probably did not amount to the “thousands” claimed by Siborne and other British authors).

18.1 CONDUCTING REACTION

Clarification. Engaging in combat in an RZ does not trigger reaction unless the attacking unit is in the frontal hex of the reacting unit. For example, a unit entering a cavalry RZ does not trigger reaction by the cavalry by attacking another enemy unit.

18.3 REACTION SHOCK (MODIFICATION)

Modification. A cavalry unit allowed to conduct reaction shock by the movement of enemy infantry or artillery may retreat instead of conducting shock.

Design Note. The most common adjustment by cavalry to an infantry advance was to retreat out of range of musket fire.]

18.6 REACTIVE FORMATION CHANGE

Clarification. The reacting unit may change out of any formation allowed into any other allowed formation. The number of morale checks needed is cumulative. For example, an infantry unit in open order adopting square formation in the face of a cavalry charge must make three morale checks: one to leave open order, two to adopt square.

21.3B) REORGANIZATION

Clarification. A leader may be placed on the map only on top of a unit within his command span, as defined in 20.4A. A commanders (20.1A) may be placed on an active headquarters within his command span.

22.3 COMMANDER GENERATED COMMAND POINTS

Clarification. An organization not adjacent to its HQ can be activated only by a commander creating a CP while stacked with it. It cannot be activated by a CP expended from the CP track, whether a commander is stacked with it or not.

MAP

No errata to date

COUNTERS

An asterisk in front of the counter indicates it was reprinted in S&T 305.

ALLIES

*The commander of the British 1st Division [1] should be Cooke, not Cole.

Netherlands 13 Line (one step) has 2/32N as its organization; it should be 2/3N.

FRENCH

*The [OG] battery with the ID 7G should be 6G.

*The organization on the Gn unit should be [GH] instead of [2/GH].

*The following irreplaceable (●) 6-5-5 counters should have an "S" special factor: 3 [5], 72 [5], 2L [6], 4L [9].

*The following French cavalry commanders should have a morale of 2 rather than the 1 printed: Delort [14c], StAl [13c], d'Urb [12c], l'Hert [11c].

*The following French cavalry commanders should have a morale of 1 rather than the 2 printed: Vial [2/14c], Trvrs [2/13c], Donp [2/12c], Picq [1/11c]; (Blnc [1/12c] remains a 2).

PRUSSIAN

*The organization on the following Prussian counters should be [4r] instead of [4K]: L-Brdlbn, Batteries 3p, 5p, 13p, 2, 11, 13, 14, 21, 1h, 11h, 12h, 4 How, Engineers 1/Man; (Cdr-Bulow remains [4K]).

*The formation icon dropped off one of the Prussian line formation markers; the marker is otherwise fine.

CARDS

TIME CARD

none to date

PLAYER AID CARDS

Terrain Effects. Streams (addition). A unit crossing a stream into a hex in an enemy reaction zone triggers reaction. [Rationale. Like a unit entering an RZ through its oblique (or flank) hexside, a unit crossing a stream takes much longer to make the move than one moving normally. Reaction is triggered because that extra time gives the reacting unit the time needed to react. It also makes viable the tactic of placing units behind a stream for the purpose.]

ARMY DISPLAYS

Allies

2nd Division [2] box: the first leader in the 1K/2 column should be DuPlat, not Ompteda.

French

None to date.

Prussian

16th Brigade [16] box: the ID of the HQ should be 16, not 15.

PRUSSIAN APPROACH CARD

Clarification. Only one CP can be expended per unit per turn; it is not permitted to expend one CP to skip a delay roll and another on the same unit to move an additional box.

Clarification. If a commander stacked with a unit rolls to create a CP and fails, the unit may still move normally and the commander moves with it. If the CP was created to skip a delay roll, the unit may still make the delay roll.

ERRATA AND CLARIFICATIONS