Simple Rules Tweaks for
NAPOLEON AT WATERLOO
by Philip Sabin, Second Edition, November 2023

Jim Dunnigan's 1971 design *Napoleon at Waterloo* is a classic of the wargame hobby. It was used as a free introduction to wargaming on various occasions, and it is easy to find the rules and components online. The following suggestions are based on SPI's slimmed down 1979 edition shown below, which has remained substantially unchanged ever since.

There have been many attempts to improve the realism of *Napoleon at Waterloo* without detracting from its classic simplicity, but none of these (including Dunnigan's own expansion kit) have really caught on. I have tried instead to improve the game's historicity without requiring new or modified counters, by amending a few deployments and making various simple tweaks to the existing rules. I detail these suggested tweaks here, with reference to the affected case numbers in the 1979 rules, *and with explanatory design notes in blue*. Substantive changes from the first edition of my tweaks in April 2020 are highlighted in red. The French are now realistically unlikely to win the standard game, but I allow a more balanced contest by lowering the threshold for French 'game victory' or by enabling 'what if?' experimentation with delayed Prussian arrival or an earlier release of Napoleon's *Guard*. Google 'Philip Sabin YouTube' to find my new video of a complete game, using my bespoke 3D playset with 450 painted Airfix figures as a nostalgic reminder of times past.

EQUIPMENT

[2.4] The 6-4 *2 Br/II* and *6 Br/Res* infantry in hexes 0810 and 1509 are shifted to hexes 0509 and 1608, replacing the 6-4 *4 Br/II* and 5-4 *2 DB/I* infantry which are removed but are not considered lost. The 3-5 *Rt Res* cavalry and 3-3 *I* artillery in hexes 0711 and 1409 are shifted to hexes 0810 and 0911. The 1-4 *Det/I* and 7-4 5 Br/Res infantry in hexes 0914 and 1708 are shifted to hexes 0913 and 1409. *Det/I* counts as having 3 Strength Points rather than 1 for all purposes. The French *I* and *II* 3-3 artillery in hexes 0915 and 1511 are swapped over, and the 2-5 *1C/I* cavalry is shifted from hex 2011 to 1912. All Anglo-Allied infantry and artillery units are rotated 90˚ to indicate that they begin Shielded. If a Shielded unit moves, advances, retreats or is displaced, it is turned upright and becomes permanently Unshielded even if it returns to its original hex. *The deployment changes model Wellington's dispositions far better, with most of his forces (especially cannon) being west of La Haye Sainte. I fold 4 Br/II's single brigade in with 1 Br/I to offset the Guards sent to join the Nassau troops in Hougoumont, and I fold Bijlandt's brigade from 2 DB/I into Picton's 5 Br/Res, while Vincke's Hanoverians on the far left are treated as part of 6 Br/Res. The eastern farms are barred to the French, abstractly modelling their defence by Saxe-Weimar's Nassauers from 2 DB/I. Shielded status reflects Wellington's use of reverse slopes and fortified farms to shelter his men from view and attack. Shielded units receive defence bonuses if they stay in their initial positions, but suffer attack penalties once they leave. This creates fascinating dilemmas for both players. Wellington must judge when Shielded units may safely manoeuvre to save his static line from defeat in detail, while Napoleon must risk losses to drive Shielded units back and prompt further Anglo-Allied units to give up their Shielded status to reinforce the threatened point. Shielded status may never be regained because the French eventually learned (at heavy cost) what lay 'on the other side of the hill'.*

BASIC PROCEDURE

[3.0] Each turn now represents 90 minutes rather than an hour, and there are only 6 turns, beginning at 1 PM and ending just before 10 PM. Move the turn marker 1.5 boxes each turn to record the correct time. *Playtesting suggests that the pace of unit loss fits better with this revised turn timescale, and that most contests are decided on turns 5 or 6. Play begins just before the major attack by Napoleon's I Corps supported by the Grand Battery.*

MOVEMENT OF UNITS

[4.5] Infantry or artillery must pay an extra Movement Point to enter the Zone of Control of enemy cavalry. A cavalry unit which begins its Movement Phase in the Zone of Control of enemy infantry or artillery may move a single hex into a vacant or vacated adjacent hex not in an enemy Zone of Control, even if it also starts next to enemy cavalry. No other unit may move into the hex it vacates. *These changes allow cavalry to screen and delay enemy infantry rather than being forced into suicidal attacks. Sacrificial diversionary attacks by 1-5s like Milhaud's small cuirassier units may still sometimes be worthwhile, and French cavalry get an attack bonus as discussed below to encourage them to charge as they did historically.*

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[4.6] French units may no longer leave the map, nor may they move, advance, retreat or be displaced into hexes within 4 hexes of the east or west map edges, or into Papelotte or La Haye. They may freely attack Allied units in these hexes. The *3 DB/I* , *2 Br/II* and *6 Br/Res* infantry in hexes 0310, 0509 and 1608 and the *Gd Hvy* and *Gd Lt* cavalry in hexes 1016 and 1814 may not move on turn 1. The *Chas Gd*, *Yng Gd* and *Gren Gd* infantry on the south map edge may not move on turns 1, 2 and 3. The 5 other French units which begin the game in or adjacent to hex 1415 may move on turns 1, 2 and 3 only if each hex takes them closer to the east map edge. All these units may attack, advance, retreat and be displaced normally. *These restrictions encourage the French to attempt a historical frontal assault rather than trying to outflank Wellington's position with its strong but static flank guards. Hindsight suggests throwing everything into breaking the Anglo-Allies quickly before the Prussians arrive, but some historians doubt Napoleon's later claim that he learnt early of the Prussian threat, and think that VI Corps arrived late east of Plancenoit instead of being sent there from a fictitious central reserve position. I accommodate both possibilities by banning VI Corps from moving elsewhere, while stopping the French blocking Prussian entry at or near the board edge. I also ban unrealistically early movement by Wellington's reserve infantry on the flanks, by Napoleon's Guard cavalry, and above all by his Guard infantry which arrived late and then stood in reserve until 6.00 pm. An interesting 'what if?' variant is to release French Guard infantry on turn 3 or even turn 2 rather than turn 4.*

COMBAT PRECONDITIONS

[5.1] Zones of Control extend into and out of Woods-Road hexes in all directions, and units must attack as normal. Units may retreat into or out of such hexes across any hexside, but moves or advances are allowed only through hexsides crossed by roads. Shielded units in Building hexes may choose not to attack, even if in a French Zone of Control. If they do attack, all adjacent enemies must be attacked. French units adjacent also to other Allied units must be attacked by someone regardless. *The Woods-Road change allows better modelling of the Hougoumont fighting, with Det/I driven back from the woods into the chateau on the previous (11.30 am) turn, and with Reille's men having to go round the woods to reach them but being able to retreat through the woods if they take the chateau and are driven out. Allowing the Shielded defenders of Hougoumont and La Haye Sainte to refrain from attacking is obviously vital to prevent their rapid defeat, though it stops them contributing their strength to nearby combats lest an Attacker Retreat result should occur.*

[5.6] Artillery units may not bombard if they started the Combat Phase in an enemy Zone of Control, or on turn 6 due to gathering dusk, or from a Woods-Road hex, or through an intervening Woods, Woods-Road or Building hex, or along a hexside between two such hexes. Unshielded Anglo-Allied artillery may not bombard. *Having Buildings block artillery fire compensates somewhat for their defensive bonus. Banning Anglo-Allied artillery from bombarding if it leaves its initial positions discourages Wellington from withdrawing his cannon into an ahistorically mobile fire support role.*

COMBAT RESOLUTION

[6.2] Units in Woods-Road or Building hexes are not doubled on defence. Instead, each infantry or artillery unit in such a hex other than Papelotte, La Haye or Frichermont increases its defence strength by 3, or by 5 if any attackers are cavalry. Combat Ratios must be reduced by at least 1 column if the attackers include Prussian and Anglo-Allied units, and to 3-1 or less if any defenders are Shielded or if any of the defenders and none of the attackers are cavalry. The die roll is increased by 1 (to a maximum of 6) if any defenders are Shielded or if any attackers are Anglo-Allied infantry units, none of which are Shielded. The roll is reduced by 1 (to a minimum of 1) if the attackers include French cavalry and no defenders receive the Woods-Road or Building bonus. The modifiers may cancel out. *Buildings now disadvantage cavalry without giving stronger infantry units a disproportionate bonus. Inter-Allied operations risk friendly fire, and the 3:1 odds cap makes it hard to gang up to overwhelm concealed Anglo-Allied units or elusive horsemen. The die roll modifiers have a more nuanced effect than column shifts. The +1 attack penalty encourages Wellington's troops to remain Shielded for as long as possible. The new -1 attack bonus makes it less dangerous for the numerous but weak French cavalry units to attack, thereby redressing the balance with the stronger Allied horse units and increasing the incentive for French mounted charges like those which famously assailed Wellington's infantry squares.*

[6.3] Exchange results are converted into Defender Retreat results if all defenders are cavalry or if all attackers are bombarding artillery, even if the defenders will be destroyed through inability to retreat. Shielded units defending in Building hexes may choose to ignore Defender Retreat results if desired. *It is more realistic for cavalry to give ground and retreat than to engage in the desperate and bloody resistance implied by an Exchange result, so large units need no longer fear disproportionate losses when attacking weak enemy cavalry units like the French and Dutch-Belgian 1-5s. Defenders can seek shelter from bombardment unless they are placed on the horns of a dilemma by nearby attacking units, as in the classic Napoleonic situation of an infantry unit forced to form square by cavalry attack, making it far more vulnerable to enemy cannon fire. There is no need for the adjacent attackers to match the defenders' strength, though if they do not, it may be hard to reach the Combat Ratios at which Exchanges occur. Exempting the small Anglo-Allied units in Hougoumont and La Haye Sainte from Defender Retreat results makes the chance per turn of a farm falling at most 1 in 3 and usually only 1 in 6, so one of the farms may well remain in Anglo-Allied hands throughout the battle, as happened historically. The French will pay a heavy price through the Exchange result now needed to take a farm, but this is worthwhile because of the impact on Allied morale as discussed under 8.0 below.*

[6.5] The owner chooses which units retreat first. Retreating units may not displace units in a Woods-Road hex, or which retreated in the same combat, or which the owner prefers not to displace. Prussian units may not displace Anglo-Allied ones or *vice versa*. *These rules limit inter-Allied flexibility and stop 2 units retreating through a single hex gap.*

[6.6] Artillery units may never advance after combat, even if adjacent to the enemy. However, any or all victorious attacking infantry or cavalry units may choose to advance one hex if desired, either into a hex vacated by the defenders in that combat or into a vacant hex adjacent both to the attacking unit itself and to a hex vacated by the defenders in that combat. Attacking units may not advance into a hex vacated by another attacker in that combat. Only one victorious defending unit per combat may advance (into a hex vacated by one of its attackers), but as many victorious attacking units may advance as there are eligible vacated or vacant hexes to advance into. If surviving victorious attackers include Anglo-Allied 3-5 or 4-5 cavalry, the strongest such unit *must* advance into a vacated (not adjacent vacant) hex. Other attackers may then choose whether and where to advance. Advances do not affect which units must attack or be attacked later that Phase, nor do they prevent bombardments by enemy artillery. *Prohibiting artillery from advancing serves to counterbalance its bombardment ability and means that players will need to use infantry or cavalry to seize hexes and cut off enemy retreats, thereby enhancing the game's portrayal of realistic combined arms tactics. The expansion of the attackers' ability to advance after combat is a key generic change which I now apply to all games using a combat system similar to Napoleon at Waterloo. It is designed to remedy what I see as the most glaring flaw in these systems, namely that units are positively encouraged to spread out in an 'alternate hex defence' to reduce their vulnerability to encirclement, whereas in reality, thinning a defensive line in this way would make it more rather than less susceptible to catastrophic penetration. The wholly artificial security which the alternate hex deployment gives in many wargames stems purely from the prohibition of advances into the vacant hexes between units, even though these hexes were abstractly being defended by the retreated or eliminated defending units by virtue of their Zones of Control. My change means that every single hex in a defending line may now be occupied by a victorious attacker, whether it contained a defending unit or not. It also means that if a unit holding a very extended line is driven back by three attacking units, all three attackers may now follow the retreating unit instead of just one as in the existing rules. Having to counterattack all three attackers will be perilous, and is key to penalising such even more extended lines with units 3 rather than 2 hexes apart. I urge you to consider such liberalisation of attacker advances in other games based on active locking Zones of Control, bearing in mind that it does tend to increase attrition rates (hence my shift to 90 minute turns). The defenders do not need more permissive advance rules, since they are about to have their own player turn. Forcing charging Anglo-Allied cavalry to pursue defeated enemies reflects their poor discipline once unleashed, and exposes them to counterattacks like that which destroyed the Scots Greys.*

[6.8] Bombarding artillery may not retreat voluntarily, whatever the combat result. *This seems much fairer than the existing rule, since the guns are already allowed to make a full move before unlimbering and bombarding – letting them opt to move a further hex afterwards in their chosen direction (since they are outside enemy Zones of Control) is unduly generous. The change parallels my prohibition on adjacent artillery advancing after combat.*

REINFORCEMENT

[7.3] The Grouchy Variant and its counters (absent from some editions) are not used. The 3 Prussian *II Corps* units (a 3-5, 5-4 and 4-3, also representing leading elements of *I Corps*) must delay their arrival until turn 4. As an abstract reflection of the continuing flow of reinforcements, Prussian artillery may still bombard on turn 6. *These tweaks model growing Prussian strength using only units from the basic game. You may experiment by delaying Prussian entry to turns 4 and 5 (with no turn 6 bonus) or even omitting them altogether.*

HOW THE GAME IS WON

[8.0] The rules for Allied Demoralisation and the exiting of French units no longer apply. Instead, the game ends at the end of any Combat Phase if either side has lost 40 or more Strength Points overall. If the Allies suffer this, the French win a tactical victory, while if the French suffer this, the Allies win a strategic victory. If both armies have lost 40 or more, the Allies win a tactical victory. The French loss total rises by 6 more than usual if the 6-4 *Chas Gd* or 7-4 *Gren Gd* infantry are lost (but only once per game). Plancenoit counts as 6 Strength Points towards the French loss total if an Allied unit currently occupies either of its hexes. The Hougoumont and La Haye Sainte Building hexes each count as 6 Strength Points towards the Allied loss total while occupied by a French unit. If neither army loses 40 Strength Points by the end of turn 6, the Allies win a tactical victory if they have lost more Strength Points, and a strategic victory if the French have lost as many or more. Competitive games may be balanced by adding a handicap system giving the French 'game victory' if the Allies have lost at least 30 Strength Points and the French fewer than 40 after any Combat Phase, or if the Allies fail to gain a strategic victory. *Play now ends only after a complete Combat Phase, to stop 'dashes for victory' which leave perilous attacks unresolved. The original SPI game gives the French a good chance of destroying 40 enemy Strength Points first, counting this only as a draw unless they go on to exit 7 units towards Brussels by nightfall. However, Waterloo was actually a decisive Allied victory, and despite Wellington's claim that it was 'the nearest run thing you ever saw in your life', most historians today think the French were unlikely to win even a tactical victory. The first edition of my tweaks gave both sides a fairly even chance of prevailing, but my latest amendments favour the Allies overall because of the severe movement limits on VI Corps and the Guard. The daunting odds facing Napoleon in the war as a whole mean that he has to rout the Anglo-Allies and so leave the Prussians in the lurch between himself and Grouchy in order to achieve even a tactical victory. The penalties for losing control of the key strongpoints of Hougoumont, La Haye Sainte and Plancenoit encourage bitter fights for these locations, and discourage both sides from ahistorically pulling back and playing for time. The added morale impact of losing French Guard infantry helps to explain Napoleon's reluctance to commit the Guard earlier. In competitive contests, I create a balanced game from this historically imbalanced battle by giving the French 'game victory' if they do better than they did in reality. You may adjust play balance simply by increasing or decreasing the Allied losses required for French game victory (perhaps with command of the Allies going to the lowest bidder).*

CONCLUSION

Dunnigan described board wargames as 'glorified Chess'. What gives his *Napoleon at Waterloo* system such enduring appeal despite the game's patchy modelling of the real battle is its simplicity and the scope it gives for skilful players to prevail through superior exploitation of hex geometry, careful defensive positioning and judicious setting up and sequencing of attacks and advances so that enemy units are encircled and destroyed wherever possible without too many valuable friendly units suffering a similar fate. Although the luck of the combat die plays a significant role, the *Napoleon at Waterloo* Combat Results Table is much bloodier and less forgiving than that in SPI's later *Napoleon at War* quadrigame, making it vital to secure favourable odds in each combat by making every Strength Point count rather than just throwing forces in and hoping for good fortune. My tweaks aim to retain this crucial element of player skill while remedying the most artificial and unrealistic aspects of the game system (such as pain-free Exchanges and the magical benefits of 'alternate hex defence') and emphasising instead more historically-based tactical factors (such as the distinct and complementary attributes of infantry, cavalry and artillery and the Anglo-Allies' reliance on reverse slope deployments, fortified farmhouses and the tactical defensive, their impetuous cavalry apart). Encirclement and 'factor counting' still play an ahistorically significant role compared to tactical considerations of line, column and square formations as modelled in more detailed and complex Waterloo games, but my further tweaked version of Dunnigan's classic offers at least as good a balance of historicity and player challenge as do other simple models of this battle such as Hanno Uusitalo's radically abstract *W1815*.

I was inspired to develop this second edition of my tweaks by Professor Charles Esdaile's recent *Wargaming Waterloo* article and book (available free online from the U.S. Marine Corps University). He challenges several 'myths' found in previous books and wargames about the battle, and he suggests his own tweaks to *Napoleon at Waterloo* to make it more historically accurate. My new amendments address similar issues, but with no need for extra counters and much more attention to correctly modelling Wellington's dispositions and tactics. I sidestep the disagreements about the French *VI Corps* by building on the fact that (wherever it started) it ended up facing the Prussians east of Plancenoit, and I use simple abstract restrictions to model the Nassau garrisons of the farms from Papelotte to Frichermont. I show the utility of combined arms tactics in a more nuanced way than in Charles's abstract column shift, and I go much further in tackling the weaknesses of the game system itself.

Napoleon at Waterloo is just one of the many games I have tweaked recently to improve the existing game system or to provide a complementary 'total conversion' using the game's components and data. Google 'Sabin wargames' and 'Philip Sabin YouTube' for details of my other designs, most posted freely online. My 2012 book *Simulating War* is full of design advice and illustrative simple games to help with your own similar efforts, and our *Simulating War* io group has hosted many years of discussions prompted by my work, including now with Charles Esdaile as another wargaming Emeritus Professor like myself.