Simple Rules Tweaks for
NAPOLEON AT WATERLOO
by Philip Sabin, April 2020

Jim Dunnigan's *Napoleon at Waterloo* is a classic of the wargame hobby, and its pioneering systems were used in many subsequent games. The 1971 original had an uncoloured map with a 27x22 hex grid, but later editions up to the present day slimmed the map down to the 23x17 hex grid shown below by cutting out areas in the south and east which saw little action. The game 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 the 1979 SPI edition shown here, 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. Dunnigan himself quickly produced an Advanced Game Expansion kit with revised rules and twice as many counters, and others have made similar more or less drastic changes to the rules and components, but none of these have really caught on. I have tried instead to improve the game's historicity by leaving the map, counters and unit deployments almost entirely unchanged while making a variety of 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*.

EQUIPMENT

[2.4] There is just one small but critical change to the initial British deployment. The 2-4 *Brn Res* infantry unit now starts in the Hougoumont building hex, where it represents the garrison of the chateau itself. Also, all British infantry and artillery units are rotated 90 degrees to indicate that they begin Shielded. A unit remains Shielded until it moves, advances, retreats or is displaced, at which point its counter is turned back upright and it becomes permanently Unshielded even if it returns to its original hex. *The shift of the 2-4 unit remedies the strange initial openness of the chateau to unopposed French occupation, and is key to allowing Hougoumont to hold out as it did historically. Shielded status simply and abstractly reflects Wellington's use of reverse slope positions and fortified farmhouses to shelter his men from view and attack. Shielded units receive a defence bonus as long as they remain in their carefully chosen initial positions, but once they move, they suffer an attack penalty to reflect the British preference for the tactical defensive. This creates fascinating dilemmas for both players. Staying put gives the British added resilience to withstand French attacks while they await Prussian deliverance, but it also inhibits effective counterattacks and exposes the static British line to defeat in detail. Judging when and where to commit flexible but fragile and impetuous British cavalry reserves and when individual infantry and artillery units may safely be released for counter-manouevre (such as to reinforce the hard-pressed defenders of Hougoumont) is crucial to Allied victory. The French face challenging dilemmas of their own. An immediate all-out attack to break the British before the Prussians can turn the tide now risks breaking French morale instead, but unduly limited and focused attacks will take too long. The French must risk some initial losses to erode British combat effectiveness by causing retreats in one part of the line, thereby opening up the battle and prompting yet more British 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'.*

MOVEMENT OF UNITS

[4.5] A cavalry unit which begins its Movement Phase in the Zone of Control only of enemy infantry or artillery units may move a single hex into a vacant or vacated adjacent hex not in an enemy Zone of Control. No other unit may move into the hex it vacates. *This allows cavalry units to disengage from slower enemies rather than being forced into suicidal attacks. Together with the tweaks in 6.2 and 6.3 below, this lets cavalry screen and delay enemy infantry unless countered by enemy horsemen. The game is still likely to see brave but sacrificial cavalry charges like those which occurred in the real battle, since the impact of losing cavalry units in exposed positions or to satisfy Exchange results is less than if stronger infantry units were sacrificed instead.*

[4.6] French units may no longer leave the map, nor may they move, advance, retreat or be displaced into hexes adjacent to the west map edge or within 2 hexes of the east map edge. They may freely attack Allied units in these hexes. *The cutting down of the original game*

map made it unrealistically easy for weak French units such as the 1-5 cavalry divisions to block the historical Prussian entry routes. This restriction removes that option and also makes it harder for the French to outflank Wellington's position rather than trying for a frontal breakthrough as they did historically. The French no longer need to exit units towards Brussels to achieve game victory, since breaking Allied morale without their own morale collapsing first is now achievement enough (as discussed under 8.0 below).

COMBAT PRECONDITIONS

[5.1] Zones of Control extend into and out of Woods-Road hexes in all directions, and units must attack as normal, though advances and retreats are allowed only through hexsides crossed by roads. Shielded units in Woods-Road or Building hexes may choose not to attack, even if in a French Zone of Control. If they do attack, normal combat rules apply. French units which are also adjacent to other Allied units still need to be attacked regardless. *The Woods-Road clarification confirms the standard interpretation and is crucial for the situation south of Hougoumont, with Reille's three strong units locked in combat at first with the tiny British detachment in the Woods. The battle for the Hougoumont complex actually started before the game begins, but having the British still occupying the Woods as well as the chateau helps to prolong the fighting realistically. Allowing the Shielded defenders of Hougoumont and La Haye Sainte to refrain from attacking is obviously vital to prevent their rapid defeat, given the adverse odds they face.*

[5.6] Artillery units may not make bombardment attacks from a Woods-Road hex or through an intervening Woods, Woods-Road or Building hex. They may bombard along the side of such hexes unless both adjacent hexes contain blocking terrain. *It is strange that Buildings do not block artillery fire in Napoleon at Waterloo (unlike in the various quadrigames based on this system), so I have made them blocking terrain to offset their powerful defensive bonus.*

COMBAT RESOLUTION

[6.2] Defending infantry or artillery units in Woods-Road or Building hexes double their strength when calculating the Combat Ratio, but cavalry units do not. Combat Ratios must be reduced to 3-1 or less if the defenders include Shielded units in a Building hex, or to 4-1 or less if the defenders include Shielded units in a Woods-Road hex or if all the defenders and none of the attackers are cavalry. The combat die roll is increased by 1 (to a maximum of 6) if the defenders include a Shielded unit or if the attackers include Unshielded British infantry or artillery. *The Combat Ratio caps reflect the difficulty of bringing superior numbers to bear against faster enemies or a small defensive perimeter. Cavalry units now realistically obtain protection not from terrain but from their superior speed. The die roll modification in combats involving British infantry or artillery has a more nuanced effect than a column shift on this game's unforgiving Combat Results Table, and encourages Wellington's men to stick to their defensive positions if possible until Napoleon's army has been fatally weakened by its own attacks and by the Prussian advance.*

[6.3] As long as no defenders will be eliminated through inability to retreat, Exchange results are converted into Defender Retreat results if all defenders and no attackers are cavalry, or if all attackers are bombarding artillery and there are no adjacent attackers (however weak) to be eliminated along with the defending unit. Shielded units defending in Woods-Road or Building hexes may choose to ignore Defender Retreat results if desired. *It is more realistic for cavalry to give ground and retreat from enemy infantry if possible than to engage in the desperate and bloody resistance implied by an Exchange result. Allowing bombarding artillery to achieve all the gain from Exchange results with none of the pain is also unrealistic, since 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. Using bombardment alone to inflict pain-free Exchanges has become an all too common feature of simple wargames (including those using the 'Fire & Movement' system by Decision Games), so my suggested tweak has much wider potential application, just like the advance after combat tweak discussed under 6.6 below. Exempting the small Allied units defending Hougoumont and La Haye Sainte from Retreat results makes the chance per turn of a farm falling at most 1 in 3 and often only 1 in 6, so one of the farms may well remain in British 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] Retreating units may not displace a unit in a Woods-Road hex, or one which retreated in the same combat. *This clarification means that two units retreating together may not both squeeze 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. British cavalry *must* advance after combat if possible. 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 strong 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, making it far less likely that the strong unit will drive back its pursuers and re-establish its original position during its compulsory counterattack in its own player turn. I urge you to apply this more liberal provision for attacker advances in all games based on rigid Zones of Control. The defenders do not need a similar change, since they are about to have their own player turn in any case. Forcing British cavalry to advance 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

[7.0] The real battle is best simulated by having all Prussian units arrive on turn 3 as in the existing rules. However, if players feel that this now gives too much chance of the historical Allied victory, then command of the Allied army may be given to the player willing to have more Prussian units delay their entry from turn 3 to turn 4. If the players' bids reach an equal number, dice for who commands which side. Unless all 9 units or none are delayed, the Allied player chooses on turn 3 which units to enter, as long as at least 20% are cavalry and no more than 20% are artillery. *I use competitive bidding for sides as a simple balancing and handicapping device in most of my game designs. Playtesting suggests that both sides have a good chance of winning the tweaked game, but the timing of Prussian arrival offers an obvious variable to exploit if players feel that further balancing is needed. Some editions of Napoleon at Waterloo include rules and counters for a 'Grouchy Variant' designed by Al Nofi which introduces great uncertainty regarding the timing, strength and even affiliation of arriving reinforcements, but this obviously plays havoc with game balance and rather exaggerates the uncertainty of the historical leaders about what was on its way. To explore this issue properly, it is better to play one of the several alternative games which explicitly model the parallel action at Wavre alongside that at Waterloo itself.*

HOW THE GAME IS WON

[8.0] The rules for Allied Demoralisation and the exiting of French units no longer apply. Instead, the game is won immediately by whichever side first destroys 40 enemy Strength Points. The French 7-4 *Gren Gd* unit counts double towards French Strength Point losses if eliminated. Plancenoit counts as 6 Strength Points towards the French loss total if its two Building hexes contain at least one Allied unit and no French unit. The Hougomont and La Haye Sainte Building hexes each count as 6 Strength Points towards the Allied loss total while occupied by a French unit. If a combat (including any advance) leaves both armies with 40 or more Strength Point losses, or if neither army loses 40 Strength Points by the end of turn 7, the game is a draw. *The existing rules clearly consider it more likely that the French will destroy 40 enemy Strength Points first, since doing so gives them only a draw unless they go on to exit 7 units by nightfall. This expectation of French success is rather at odds with the fact that Waterloo was actually a decisive Allied victory. Many have claimed that Napoleon should in principle have won, and Wellington famously described the battle as 'the nearest run thing you ever saw in your life', but other commentators have suggested that the Allies had decisive tactical advantages which made Napoleon's defeat entirely unsurprising. My tweaks to British resilience (especially at Hougoumont and La Haye Sainte) amply offset any French advantage in the standard game, and so justify giving the French player game victory if he or she breaks Allied morale before suffering the same fate. The penalties for losing control of the key strongpoints of Hougoumont, La Haye Sainte and Plancenoit encourage bitter fights for these locations, as happened historically. The area north of Hougoumont becomes especially hotly contested just as in reality, as Wellington shifts forces across from his increasingly secure left wing and as the French strive to break the Anglo-Allies before their own right wing and reserve are overwhelmed by the inexorable Prussian onslaught. I also double the penalty for France losing the Old Guard, thereby encouraging realistic circumspection in its use until the time comes for an all or nothing gamble like that which Napoleon made and lost at the climax of the battle. These adjustments have the further benefit that the break point of 40 is likely to be reached before so many units on both sides have been removed that any semblance of fighting fronts is lost. It could be argued that the overall strategic situation means that the French should lose the game if they fail to break the Allies, but I have classed this as a draw instead to dissuade the British from pulling back and using the significant space and defensible buildings in the north of the mapboard to play for time. Had they done so, Prussian paranoia about being left in the lurch between Napoleon and Grouchy would have prompted them to fall back to the north east, leaving the Allies divided once more, so it was in both sides' interest to seek a decision on the existing battlefield. The bloody Combat Results Table means that such a decision comes quickly, and in playtesting one army usually broke on turn 5 if not sooner. This suggests that each turn is better thought of as representing 90 minutes of action rather than 60, so I have nightfall ending the fighting after 7 turns instead of 10. This still gives ample time for the contest to be decided one way or the other.*

CONCLUSION

Dunnigan described board wargames as 'glorified Chess'. As with the earlier Avalon Hill 'classics', 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 British reliance on reverse slope deployments, fortified farmhouses and the tactical defensive, their impetuous cavalry apart). Encirclement still plays an ahistorically significant role compared to more realistic tactical considerations of line, column and square formations as modelled in more detailed and complex Waterloo games, but my 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.

My suggested modifications to Napoleon at Waterloo are the latest product of my current wargame design focus, which is on exploiting existing game components by amending or replacing the rules governing their use. There is such a glut of new board wargames being published today that I prefer where possible to avoid adding to the flood, and instead to maximise the utility of games which already exist by offering their owners different and novel ways of playing them so that even old classics can enjoy a new lease of life. The great advantage of board wargames compared to the mass market alternative of computer games is that even non-programmers can easily tweak the rules as I have suggested here, to create what they consider to be a more accurate and worthwhile representation of reality. My 2012 book Simulating War is full of design advice and illustrative simple games to help with your own similar efforts, and I have posted my more recent total conversions of published games such as Wing Leader and Admiral's Order on the Boardgame Geek pages for those games and also in the files section of the Simulating War io group which has hosted many years of discussions prompted by my work. Please read the book and browse the websites for many more ideas like those above.