

Tactical Unit Points: MUSKET & PIKE PLAY BALANCE

by Arnold J. Hendrick

Musket & Pike is one of the few SPI games that includes notes regarding favored sides. Unfortunately, these notes apparently are not based on optimum play by both sides, and sometimes are badly in error. How many Imperialists have saved their artillery at supposedly equal Breitenfeld? What wise general would choose the moderately favored Imperialists at Lutzen? Furthermore, even when the balance notes are correct, who would want the losing side, given a nearly equal opponent? Losing with the Dutch at Mookerhyde, Spanish at the Dunes, Parliamentarians at Brentford or Staverton, Royalists at Marston Moor, Aberdeen, Naseby or Dunbar, much less the Ottomans at Szentgotthard and Jacobites at Killiecrankie, can be very depressing, despite the knowledge that the enemy was the "favored" side. In all of the eighteen scenarios, only three provide probably equal contests to equal Players - Nieuport, Nordlingen and Grantham.

UNIT POINT VALUE

Years before James Dunnigan designed the first board tactical game, miniature wargamers had fought similarly scaled wargames. To insure play balance, they

usually develop a system of unit point values. The total capabilities of each different type of unit are represented by a single point value. Opposing sides are matched so that their total unit points are equal. In some types of games (especially 18th century and after), the attacker is allowed a certain advantage in attacker-defender situations.

There is no reason why the same principle cannot be applied to tactical board games, especially multi-scenario games. Provided a workable unit point value can be developed, the "balance" of scenarios and usefulness of units can be easily evaluated. Although units in the Armageddon-Renaissance of Infantry series had a value, these represented the unit's importance in army morale, rather than innate combat worth. Some extremely valuable units were relatively "cheap" in points as a result.

Developing an equation for unit point value is largely trial and error, like any experiment. However, it is reasonable to assume that in move-combat games the total worth of the unit is a product of the movement and combat abilities. In *M&P*, the fire combat before movement throws a curve, since the

ability to fire effectively depends mainly on enemy movement. Therefore, fire combat ability should be added to the basic move and combat (melee combat) product.

Reiter Cavalry (RC) is the exception, and requires a separate equation because it operates outside the normal turn procedure. The division of fire combat ability by three is due to the simple fact that a typical open-ground fire defense value is three, not one. The overall division by three reduces the final value to a manageable figure, and the subtraction of one afterward reflects the importance of quality and concentration of strength over quantity. With these basic principles, the rationale behind the equations below should be clear:

$$\frac{1}{3} (\frac{1}{3}FR + M + CM) - 1 = \text{Unit Point Value}^*$$

$$\frac{1}{3}M (\frac{1}{3}FR + C) - 1 = \text{Reiter Point Value}$$

F=Fire; R=Range; M=Movement;
C=Melee Combat.

Parenthesized melee strengths are read normally, which means (1) is considered one.

UNIT POINT VALUES			COUNTER MIX QUANTITY								
UNIT: type	fire-range -melee-move	POINT VALUE	balanced	blue	green						
MP	0-0-2-3	2	10	10	16		MP	Militia Pikemen		SC	Swedish Cavalry
PP	0-0-4-3	4	20	20	24		PP	Professional Pikemen		RC	Reiter Cavalry
EP	0-0-6-3	6	20	10	10		EP	Elite Pikemen		DR	Dragoons
MM	4-4-(1)-3	3	20	15	15		MM	Militia Muskets		LA	Light Artillery
PM	8-5-(1)-4	6	25	20	20		PM	Professional Muskets		MA	Medium Artillery
LC	0-0-2-10	9	10	10	10		LC	Light Cavalry		EA	Early Heavy Artillery
HC	0-0-5-6	11	15	15	18		HC	Heavy Cavalry		HA	Late Heavy Artillery
SC	0-0-8-8	23	20	10	10						
RC	3-2-1-8	7	10	10	16						
DR*	2-3-1-8	6	15	15	19						
EA	9-15-(1)-0	14	2	2	5						
LA	12-6-(1)-10	10	2	2	3						
MA	18-8-(1)-5	17	4	2	2						
HA	9-15-(1)-3	15	6	6	7						
artillery limbers for LA, MA and/or HA		0	6	6	7						
number of limbers artillery units that may be used.		limits number of non-EA units that may be used.									

Artillery speeds are cut in half, due to the limber-unlimber problems. Zero speed artillery is given an arbitrary speed value of 0.5.

The results of this equation, when applied to units in *Musket & Pike*, is shown on the unit point value module. Number of units of each type included as counters in the game are also listed for handy reference.

ARMY STACKING ABILITY EVALUATED

The ability to stack units 3-high is an important tactical advantage in the game. Since topmost units are often disrupted by enemy attacks, a good choice of second and third units can improve combat ability greatly. It is also quite difficult to knock a 3-high stack out of a position, especially a position which improves fire and melee defenses. In the hands of an adept Player, using 3-high stacking against an army without it can produce victory against an otherwise equal opponent almost every time.

It is, therefore, not outrageous to say that 3-high stacking adds 25% to the power (and point value) of an army. When choosing an

army from a given number of points, 2-high stacking should be assumed. Players may choose 3-high stacking instead, upon payment of 20% of their total original points. Thus with 300 points available, 3-high stacking would cost 60 points.

BALANCING SCENARIOS WITH POINTS

The scenario point analysis module gives the total points available to each side in each scenario. For the Szentgotthard scenario, in which part of the Imperialist army arrives late, the first and second groups are separately shown. Although point totals cannot reflect terrain or attacker/defender situations, experienced *M&P* Players will probably agree that most positions can be outmaneuvered. Indeed, trying to find good defensive terrain with an inferior army, and being forced thus to defend areas that may not be otherwise advantageous, can be a serious liability in many situations. For this reason, the whole question of terrain and victory conditions has been deliberately ignored.

By comparing the total unit points available

to each side, victory can be balanced in a very easy and fair fashion. Instead of just playing for the victory conditions given, achievement of victory and destruction of enemy units can be rated in points, and these "victory points" juggled to compensate the weaker side.

The scenario point analysis includes a victory point rating for each side in each scenario, which the side collects if it accomplishes the scenario victory conditions by the end of the game. These points are basically half the opponent's total unit points, but if the opponent is stronger, the value was multiplied by the equalizer factor, which reflects the disparity in strength. Hence the underdog Imperialists (green) at Breitenfeld collect 917 points if they managed to pull a victory out of the fire, while the Swedes (blue) only get 142.

In addition to points for victory conditions, each side should also be given points for destroying enemy units. Victory points for enemy units destroyed are the same as the point value of the unit. However, because the weaker side will naturally receive heavier casualties (unless the opponent makes some

SCENARIO POINT ANALYSIS

SCENARIO:	Blue [1st] Total pts.	Green [2nd] Total pts.	Blue/Green Victory Points	Equalizer Factor	Game Value Divisor
16.11 Mookerhyde	326**	197	98/269	1.65gr	7.06
16.12 Coutras	252*	208	104/152	1.21gr	5.88
16.13 Nieuport	430	401	193/230	1.07gr	10.42
16.21 White Mountain	130	230	204/65	1.77bl	4.94
16.22 Fleurus	215	258	154/108	1.20bl	6.04
16.23 Breitenfeld	722	284	142/917	2.54gr	18.38
16.24 Lutzen	670	418**	209/536	1.60gr	14.60
16.25 Nordlingen	475	438	217/256	1.08gr	11.50
16.26 Dunkirk Dunes	305**	234	117/198	1.30gr	6.96
16.31 Brentford	96	176**	161/48	1.83bl	3.76
16.32 Grantham	233**	231	116/118	1.01gr	5.81
16.33 Staverton	229	324**	228/114	1.41bl	7.24
16.34 Marston Moor	261	327***	204/130	1.25bl	7.55
16.35 Aberdeen	105**	177	150/52	1.69bl	3.83
16.36 Naseby	613***	315	158/598	1.95gr	13.06
16.37 Dunbar	335	214	107/262	1.57gr	7.34
16.41 Szentgotthard	152+222*	225	112/314	1.67gr	8.14
16.51 Killiecrankie	177	342**	330/88	1.93bl	6.68

(note: English are 2nd Player in this scenario, as per rule addenda)

MYTHICAL SCENARIO POINT ANALYSIS

SCENARIO	Blue [1st] Total pts	Green [2nd] Total pts	Blue/Green Victory Points	Game Value Divisor
16.61 Meeting Engagement	250	250	125/125	6.25
16.62 Open Field Battle	425	425	none	8.50
16.63 Pursuit	300	300	special	7.88
16.64 Border Clash	350	350	175/175	8.75

NOTES

In scenario 16.13 (Nieuport) each Dutch HA unit is valued at 17 points due to the increased mobility. In scenario 16.51 (Killiecrankie) each English PM unit (with plug bayonet) is valued at 8 points.

Total Points show the combined unit value of each side, including a 25% bonus in armies allowed 3-high stacking. Asterisks illustrate supposed favorites, either slightly (*), moderately (**), or heavily (***) favored. As can be seen, the play-balance notes from the rules rarely correspond to the point situation.

The Blue/Green Victory Points column shows the points awarded to blue and green respectively for accomplishing their victory conditions.

The Equalizer Factor shows the multiplier and side allowed it, for computing the value of enemy units destroyed. For example, in the Mookerhyde scenario, blue is awarded the normal amount of points for each green unit destroyed. However, green will total the value of all blue units destroyed, and then multiply it by 1.65. This is because the equalizer is "1.65gr".

The Game Value Divisor is used in the campaign game system. The total victory points (victory conditions plus units destroyed) of each side is divided by the game value divisor. This allows the victory points in different games to be interrelated.

NOTES

This is an extension of normal scenario point analysis, when applied to the suggested mythical scenarios. Note that because the point totals of each side are equal, the equalizer factor automatically becomes 1.00, and therefore is not used. Also note that scenario 16.62 has no special victory conditions and points, the objective is purely the destruction of enemy units.

serious errors), the weaker side should multiply by value of all enemy units destroyed by an "equalizer" factor. This factor is simply the advantage the stronger side had. For example, at Naseby the Parliamentarians (blue) have a 1.95 to 1 advantage over the Royalists (green). Therefore, the Royalists are allowed a 1.95 equalizer factor. At the end of the game, the Royalists add up the total points of the enemy units they destroyed, and multiply the total by 1.95. The Parliamentarians must be content with the regular value of the Royalist units they destroyed.

The combined total of the points for victory condition achievement (if any), plus enemy units destroyed (times equalizer if any), yield the total performance of that side in the game. Higher total is the victor, and a 2-1 or more advantage in victory points is a significant victory. Something that would earn a real general a title and an estate from a grateful monarch.

CAMPAIGN GAMES

Another common aspect in many miniature wargames that is also applicable to tactical board games is the progressive "campaign game". In this, a set series of battles, usually historical, are fought in order. The side with the best combined victory record is declared the winner of the campaign. Purists will point out than an unhistorical result in any battle could easily alter the situation in all the following battles. Attempts to duplicate this eventuality have generally led to horribly complex failures. In a broad historical sense, the system is realistic, since campaigns are won and lost by an aggregate of battles. Exactly who had what available in any given action is less important than who won, when it comes to making historical judgments. The important thing is that there be some magnitude of defeat consideration.

It is possible for Players to play each scenario in the Religious Wars (16.11-16.13), Thirty-Years War (16.21-16.26) or English Civil War (16.31-16.37) and just add the total victory points scored by each side in each game together. This means, of course, that battles with a lot of units are more important than those with a few. The realism of this approach can be argued pro and con with success. For those inclined to the con position, there is a way of relating victories in different battles on an equal footing.

to relate battles equally, use the game value Divisor for that scenario, as listed in the scenario point analysis module. Each side divides its total points by the game value divisor. The larger the points available to each side in the game, the larger the divisor, as can be seen. "Game valued" victory points for different battles can then be added together, with the assurance that a whopping victory in a battle with few units will indeed outweigh a minor defeat in a battle with many units.

The game value divisor can also be used in

tournaments. In round-robin or other tournaments, the game valued victory points scored in each game by each contestant can be averaged and the highest average be declared the local "*Musket & Pike Champion*". Standings for Players can be computed, and if two Players with different standings (or general averages) play, the better (higher standing) Player might subtract the standing difference from the game valued victory points he scored, giving the poorer Player a "handicap".

MYTHICAL BATTLES

There comes a point when any set of scenarios, no matter how large, becomes boring: In *M&P*, where only three scenarios are clearly balanced (have an equalizer of 1.10 or less), this sad day may come around rather rapidly. The solution is simple: assign each Player a certain number of points and deployment position. After secretly choosing armies, have at it. More sophisticated Players might even develop victory conditions. Remember, the use of 3-high stacking requires 20% of the original allowed points.

Choices will be limited by the number of counters available for that color, and non-EA artillery by the number of limbers as well. Unfortunately, the units available to blue are generally superior to those of green (that is, blue has more of the better units, as evidenced by its total value of all units being 1477 to green's 1294). Therefore, a third "Balanced" number of counters is given in the unit point values, giving the maximum each side may choose of each type, and still insure total equality of choice (given the different counter mixes). With equal choices, and opponents who see a lot of each other, things are bound to get into a rut sooner or later. The solution is limiting choices to the historical lines. Each Player chooses a certain "Historical" army, and limits his choices to the troops found in that type of army.

The historical army restrictions module gives some detailed suggestions for typical armies of the period. Each army is limited to certain units. In addition, the use of certain types may be further restricted by other types. Some armies are forced to use 2-high or 3-high stacking, instead of being allowed the choice. Those forced to use 3-high stacking must naturally make the appropriate 20% deduction. Naturally some historical armies are "better" than others, because they allow the use of superior units and/or have fewer qualifications on the choice of each type. Therefore, to balance armies, the total point value allowed should have a certain percentage added or subtracted, depending on the army. For example, assume each side is allowed 300 points. If one side is using a French Catholic Army, it may add 10% (or 30 points), allowing it the use of 330 points altogether. On the other hand using an Imperial Army causes a subtraction of 5% (15 points), reducing the amount available to 285. These modifications are independent of stacking payments, and thus regardless of

what kind of army was chosen, 60 points (20%) would still be necessary for the use of 3-high stacking.

Mythical battles with historical armies combine the best of realism and commander freedom, not to mention play balance. A variant of this system is to use the scenario point analysis, the actual scenario deployment and victory condition rules, and within historical army limits allow each side freedom of unit choice in each scenario. In this way "historical" battles can be fought with a different group of units, producing new and interesting situations. The victory points, equalizer factor, and game value divisor mitigate the unbalancing effects inherent in this freedom of choice.

MYTHICAL BATTLE SCENARIOS

However, with the capability of choosing historical but balanced armies, one of the greatest pleasures is a balanced scenario. The following four scenarios could easily occur in any war, and are designed to allow an equal opportunity to each side. Side deploying first should move first. Remember that the compass rose was printed upside down on the original mapsheet (*since corrected - Ed.*).

[16.61] MEETING ENGAGEMENT: each side is allowed 250 points. Neither side deploys on the mapsheet. Instead, the first Player moves onto the mapsheet from the road hex along the southern map edge. The second Player moves onto the mapsheet from the road hex along the northern map edge. Units may enter in road mode. The scenario lasts 15 Game-Turns. At the end of the 15th Game-Turn, the side that controls the road junction (there's only one, between towns 11 and 12) wins the game.

[16.62a] OPEN FIELD BATTLE: each side is allowed 425 points. The first side deploys on, or adjacent to, the line of hexes running from hex 5 to the southern edge of the mapsheet, inclusive. The second side deploys on, or adjacent to, the line of hexes running from hex 9 to the southern edge of the mapsheet inclusive. The scenario lasts 20 Game-Turns. There are no special victory conditions, the Player who destroys more enemy points is the winner.

Alternate deployments for this scenario lend variety to the most typical of all situations:

16.62b - first side deploys within four hexes hex 12, second within five of hex 11.

16.62c - first side deploys within four hexes of hex 7, second within three of hex 11.

16.62d - first side deploys within five hexes of hex 10, second within four of hex 13.

16.62e - first side deploys within four hexes of hex 15, second within four of hex 13.

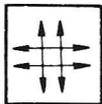
[16.63] PURSUIT: each side is allowed 300 points. The first side does not deploy on the mapsheet, but instead moves onto it from the road hex and/or both adjacent hexes along the east edge of the mapsheet. Units may enter in road mode. The second side deploys anywhere within three hexes of hex 6. The

scenario lasts 20 Game-Turns. The second side must purchase at least five MA and/or HA artillery units. The second side scores double the value of each of these artillery units whenever each moves off the western half of the mapsheet (any edge of the map west of the north-south centerfold). The first side scores triple the value of each of these artillery units when each is destroyed. In this scenario, the second side may move off the western half of the mapsheet. Units exited off the map are NOT counted as destroyed. The first side may not leave the mapsheet after entrance. It need not enter, however.

[16.64] BORDER CLASH: each side is allowed 350 points. In an alternate version, each side can only be allowed 150 or 200 points (very small forces). Each side secretly selects one of the town hexes (1, 6, 8, 11 or 12). Selections are then revealed, and each side deploys within five hexes of the enemy selection. If both sides select the same town hex, roll one die, if a 1, 2 or 3 results, hex 3 is the other deployment hex, if a 4, 5 or 6 results then hex 15 is the other deployment hex. Players then roll a die, the higher roller choosing either his deployment hex or being first or second Player. The scenario lasts 20 Game-Turns. Control of both deployment hexes at the end of the game is necessary for victory.

MYTHICAL CAMPAIGN: an interesting mythical campaign can be played by combining the above scenarios. Try the following order: 16.64, 16.61, 16.62 and finally 16.63. Roll a die to determine which variant of 16.62 should be used: 1-a, 2-b, 3-c, 4-d, 5-e, 6-roll again. After finishing scenario 16.63, determine the winner and loser. The loser may elect to try one more battle, a "last ditch" stand, in which all victory points will be doubled. Play this as a 16.62 scenario, using the random die-roll for variant choice. After the final battle, if any, retotal the victory points and determine the winner.

A mythical scenario point analysis module has been included in case game value divisors are desired. Note that because sides are equal, the equalizer factor is 1.00. This means in effect that no equalizer factor is used in any of these mythical battle scenarios.



A POSTSCRIPT ON SQUARES

It is technically possible to form "moving" squares in *M&P* by disbanding a square at the start of movement and reconstituting it at the end of movement. Therefore, the definition of "square" should be extended to mean any unit both starting and ending the move in a square. Such a unit may not move. Not even to move between squares. If a unit wishes to move, it must either start or finish its movement outside a square.

HISTORICAL ARMY RESTRICTIONS

French Catholic [Royalist] Army 1550-1608

units available: MP,PP,MM,LC,HC,DR, MA,EA
unit choice restrictions: LC and DR combined cannot exceed number of HC
army point value modifications: add 10%
stacking limitations: may use 2-high or 3-high stacking

French Huguenot Army 1550-1608

units available: MP,PP,MM,LC,HC,RC, MA,EA
unit choice restrictions: LC and RC each may not exceed number of HC, army should be allowed blue if full counter-mix is used
army point value modifications: add 10%
stacking limitations: may use 2-high or 3-high stacking

English 16th Century Army

units available: MP,PP,MM,LC,HC,EA
unit choice restrictions: LC and HC combined cannot outnumber any single infantry type
army point value modifications: add 20%
stacking limitations: may use 2-high or 3-high stacking

Spanish Army 1550-1648

units available: PP,EP,MM,PM,HC,RC, MA,EA
unit choice restrictions: PM cannot exceed MM, total PM and MM cannot exceed total PP and EP, no cavalry type may outnumber any single infantry type
army point value modifications: none
stacking limitations: may use 2-high or 3-high stacking

Dutch Army 1550-1648

units available: MP,PP,MM,PM,LC,HC, RC,MA,EA
unit choice restrictions: PM not allowed until 1590
army point value modifications: none
stacking limitations: may use 2-high or 3-high stacking

Imperial Army 1618-1680

units available: MP,PP,MM,PM,LC,HC, RC,MA,HA,EA
unit choice restrictions: MA may not outnumber total of HA and EA
army point value modifications: subtract 5%
stacking limitations: may use 2-high or 3-high stacking

Swedish Army 1618-1648

units available: MP,PP,MM,PM,LC,HC, RC,DR,MA,HA
unit choice restrictions: MM and PM combined may not outnumber MP and PP combined, maximum of one MA unit per army
army point value modifications: subtract 5%
stacking limitations: may use 2-high or 3-high stacking

English Parliamentary Army 1642-1680

units available: MP,PP,MM,PM,LC,HC, SC,RC,DR,MA,HA,EA
unit choice restrictions: RC and DR may not both be used, opponent must be informed which type is in use before each campaign or battle
army point modifications: subtract 10%
stacking limitations: may use 2-high or 3-high stacking

Scottish Army 1550-1680

units available: MP,PP,EP,MM,LC,DR, LA,EA
unit choice restrictions: none
army point value modifications: add 10%
stacking limitations: must use 2-high stacking

Turkish [Ottoman] Army 1550-1680

units available: MP,PP,MM,PM,LC,HC, HA,EA
unit choice restrictions: PP may not outnumber MP, PM may not outnumber MM, and HC may not outnumber LC
army point value modifications: add 5%
stacking limitations: must use 2-high stacking

A WORD ABOUT THE SIGNIFICANCE OF ERRATA

Every so often we get an irate letter from a gamer complaining about the plethora of errata sheets that attach themselves to the SPI line of games. Every so often a rival game publisher (almost any one of the half-dozen or so extant) will take a cheapshot at us in print (to the effect that their games "...are finished games, thoroughly tested and proofed, not hastily thrown together 'paperback' games."). To the irate gamer I pose the question: would you rather we not admit our mistakes nor add refinements to our games in print? To the other game publishers, I would suggest that those words they breathe have an aroma of sour grapes about them. Furthermore, I've yet to see a game by any publisher that would not benefit by the addition of an errata/addenda sheet or a thoroughgoing revision of the printed rules. I don't mean to offensively criticize other publishers for their own faulty rules...I merely propose that he who is without sin cast the first

stone, and that those who arrogate an aura of editorial flawlessness for themselves study the frailty of their own works. All of us - gamers, SPI, and its fellow publishers - must face the fact that simulation games are one of the most complicated editorial problems going; that there will always be room for misinterpretation and error; that we are all human; and that we should all strive to reduce our mistakes and correct them whenever the chance presents itself. Nevertheless, every once in a while, SPI is going to let something really assinine occur in its rules. We're spending a lot of money to reduce the number of sappy statements and errors in our games...we are striving for excellence as is, I'm sure, the rest of the simulation gaming community. Naturally we like to think of SPI as the best team, but we don't delude ourselves with the notion that we're supermen or World's Foremost Authorities. [End of speech on the fallibility of editors, thanks for listening and putting up with my attack of pique —RAS]