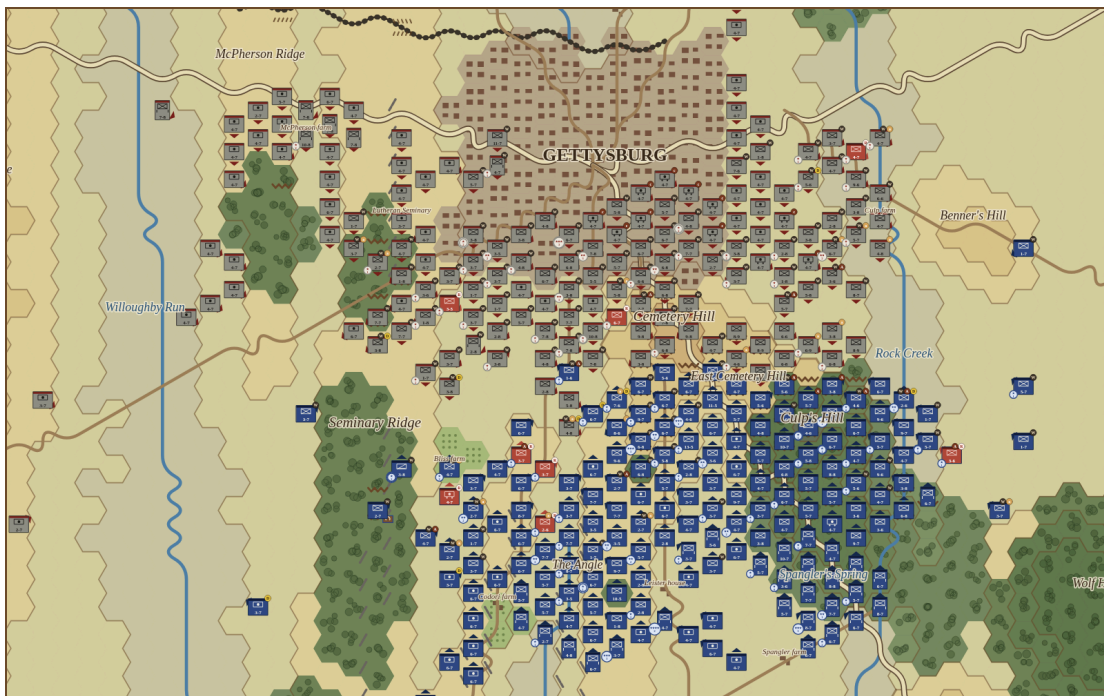


TERRIBLE SWIFT SWORD

The Three Days of Gettysburg · 1–3 July 1863



“He hath loosed the fateful lightning of His terrible swift sword.”

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1. THE GAME

Terrible Swift Sword fights the Battle of Gettysburg at the level of the regiment and the battery. Each hex is 120 yards across; each game turn is twenty minutes of the battle. The Union army fields 237 infantry and 15 cavalry regiments and 57 batteries (316 guns); the Confederate army 169 infantry regiments and 61 batteries (253 guns). 136 commanders, from the army commanders to every brigadier, stand on the map with them.

It is a browser recreation, after the board wargame designed by Richard Berg and published by SPI in 1976. Its rules are an independent reimplementaion, written for play on a screen against a machine general or a second player.

2. STARTING A BATTLE

The title sheet lists the actions. Choose one, then your command — Union, Confederate, both sides at one screen (hot seat), or watch the machine generals fight — and whether to play with fog of war. **Take the field** begins. The battle saves itself at the end of every half-turn; **Continue saved battle** returns to it.

3. THE MAP

The field runs from Herr Ridge in the west to Wolf Hill in the east, and from Oak Hill in the north to Big Round Top in the south. Elevation is shown in tints and contour lines; each contour is one level. Roads and pikes, the railroad

and its cuts, streams, stone walls, woods, orchards, the Wheatfield, the boulders of Devil's Den and the town are all terrain.

Terrain	Move cost	Fire against troops in it	Line of sight
Clear	1	×1.00	—
Wheat	1	×0.95	—
Orchard	1.5	×0.85	partly
Woods	2	×0.60	blocks
Town	1	×0.50	blocks
Boulders	3	×0.50	partly
Rocky woods	3	×0.45	blocks
Stone wall (from its face)	—	×0.55	—
Breastworks	—	×0.4	—
Railroad cut	+1	×0.6	—
Farm buildings	—	×0.7	—

Streams add 1 to the cost of entering (2 for limbered guns); each contour climbed adds 1 (2 for guns). Units in column, limbered guns, mounted cavalry and leaders moving along a road pay ½ per hex. Line of sight is traced hex to hex: higher ground blocks it, and woods and town block it as though a level higher. It is always mutual.

4. THE COUNTERS

A regiment shows its strength in strength points (50 men each) and its morale: **8-7** is some four hundred men of morale 7. A battery shows its serviceable guns. The dark band marks the front; the pointer outside the counter shows the facing. Markers: **D** disordered, **R** routed, **a/A** cartridges low/out, **c** guns reduced to canister, **W** brigade wrecked. Leaders are the round counters with stars (one for a brigade, four for the army) and their leadership rating. Dismounted cavalry leave a brown horse-holders counter.

5. THE TURN

Each side takes a half-turn. At its start: disordered regiments try to recover, routed ones try to rally or keep running, scheduled reinforcements march in by their roads, and objectives change hands to whichever side alone stands on them. Then every piece may move, fire and charge, in any order. **End turn** passes to the other side; when both have moved, the clock advances twenty minutes. At the end of each day comes night.

6. MOVEMENT

Piece	Movement allowance
Infantry in line	5
Infantry in column	7
Cavalry mounted / dismounted	12 / 5
Guns limbered / unlimbered	8 / 1
Leader mounted / afoot	12 / 4
Horse-holders	8

A regiment with its whole allowance may always move one hex. Entering a hex next to an enemy regiment or battery halts the march; leaving such a hex costs one more. One combat unit may stand in a hex (leaders and horses stack freely); friendly units may be marched through at a cost of one. Changing formation costs 3; a regiment faces the way it last moved, and one change of facing a turn is free, each further one costs 1.

7. FIRE

A regiment or battery may fire once a turn at an enemy inside its front arc (the 120° cone ahead), within range and in sight, with no friendly troops in the way (guns may fire over them from higher ground). It may fire at full effect if it has not moved, at half if it has used no more than half its movement, and not at all after that. Infantry in column cannot fire.

Infantry and cavalry inflict $\text{men} \times \text{factor} \div 10$ casualties, before modifiers and dice:

Weapon	120 yds	240	360	480	600	reach (yds)
Rifled musket	1	0.8	0.5	0.3	—	480
Smoothbore (buck & ball)	1.3	0.5	—	—	—	240
Mixed arms	1.1	0.7	0.35	0.15	—	480
Sharps rifle	1.25	1.05	0.8	0.55	0.3	600
Breech-loading carbine	1.15	0.85	0.45	—	—	360

Artillery inflicts $\text{serviceable guns} \times \text{factor}$ (canister at 1–2 hexes, shell beyond):

Guns	1 hex	2	3	4	6	8	10	12	reach (yds)
12-pdr Napoleon	13	9	4.5	2.2	1	0.8	0.65	0.55	1680
3-inch Ordnance rifle	7	5.5	3.2	2	1.1	0.95	0.85	0.75	2400
10-pdr Parrott	7	5.5	3.1	1.9	1.05	0.95	0.85	0.75	2400
20-pdr Parrott	6	5	3.4	2.4	1.3	1.1	0.95	0.85	2520
12-pdr howitzer	11	8	3.6	1.8	0.8	0.6	—	—	1080
Mixed battery	10	7	3.8	2.1	1.05	0.9	0.8	0.7	1920

Modifiers multiply the result: the target's cover (table above); target in column $\times 1.5$; guns limbered $\times 1.4$ or unlimbered $\times 0.7$; mounted target $\times 1.25$; enfilade (fire into flank or rear) $\times 1.5$; firer disordered $\times 0.5$; cartridges low $\times 0.5$; fired after moving $\times 0.5$; troops lying down under shellfire at 600 yards and more $\times 0.5$; guns firing uphill $\times 0.8$.

The dice. Two dice set a final multiplier:

Roll	2	3	4	5	6	7	8	9	10	11	12
×	0.1	0.3	0.5	0.7	0.85	1	1.15	1.3	1.55	1.9	2.4

Every step appears on the Casualty Return.

8. DEFENSIVE FIRE

When a regiment ends its march within 240 yards of an enemy regiment's front (360 for a battery) and in its sight, up to two such enemy pieces that have not already volleyed this turn fire on it at once. The approach across open ground is where attacks are bled.

9. CHARGES

A regiment in good order and in line, beside an enemy in its front arc, not having fired this turn, may charge. Every one of your regiments able to charge the same position goes in with it. The defender fires a closing volley at the leading regiment; the attackers then test their will to close (morale, less one for each 10% lost to the volley) — failing, they are disordered and stop. Otherwise strength (men × morale/7, helped by a leader present) is set against the defender's, which is multiplied for woods ×1.2, town or boulders ×1.5, a stone wall faced from the front ×1.5, breastworks ×1.75, each level uphill +12%, and reduced for a flank attack ×0.6, disorder ×0.5, being caught in column ×0.6 or being gunners. The ratio picks a column; two dice read the result:

Odds	2	3	4	5	6	7	8	9	10	11	12
1:3	AR	AR	AR	AR	AR	AR	AD	AD	EX	EX	DR
1:2	AR	AR	AR	AR	AR	AD	AD	EX	EX	DR	DR
2:3	AR	AR	AR	AR	AD	AD	EX	EX	DR	DR	DD
1:1	AR	AR	AR	AD	AD	EX	EX	DR	DR	DD	DD
3:2	AR	AR	AD	AD	EX	EX	DR	DR	DD	DD	DS
2:1	AR	AD	AD	EX	EX	DR	DR	DD	DD	DS	DS
3:1	AD	AD	EX	EX	DR	DR	DD	DD	DS	DS	DS
4:1+	AD	EX	EX	DR	DR	DD	DD	DS	DS	DS	DS

AR attacker repulsed and falls back · AD attack stalls, attackers disordered · EX bloody exchange, both disordered · DR defender driven back · DD defender routed, some taken prisoner · DS defender overrun, many prisoners. Guns overrun are captured. A defender with nowhere to retreat surrenders.

10. MORALE, ROUT AND RALLY

Casualties of 3% or more in a volley force a morale test: two dice must not exceed morale + 2, less one for each 10% lost in that volley, for fire into the flank, for canister, for a regiment already half gone, for a wrecked brigade, for being out of command, and for being already disordered; plus a present leader's rating and one for good cover. Fail by one or two and the regiment is disordered; fail by three or more, or fail while disordered, and it routs — falling back up to four hexes toward its army's rear. A rout shakes the regiments beside it, each of which tests at -1. Disordered regiments recover at the start of their side's turn; routed regiments rally more readily with a leader of their own within two hexes and well away from the enemy.

11. BRIGADES AND COMMAND

A brigade that has lost 40% of its men, or has half its regiments broken, is **wrecked**: its regiments will not march into contact or charge for the rest of the day, and test morale at -1. A wrecked brigade that has lost less than half its strength recovers overnight. A regiment is in command within four hexes of its brigadier (six for cavalry) or three of its division or corps commander; out of command it tests morale at -1 and adds less to a charge.

12. LEADERS AND HORSES

When a hex holding a leader takes casualties he may be struck down (killed, mortally wounded or wounded); a successor takes over at a lower rating — for the corps and divisions where history gives one, the man who did: Doubleday for Reynolds, Pettigrew for Heth. Or his horse may be shot from under him, leaving him afoot until he finds another. A leader alone in a hex the enemy enters gallops for the nearest friendly troops, and may be captured. Cavalry dismounts to fight: a quarter of its men hold the horses; if the enemy reaches the horse-holders they are taken and the regiment cannot remount.

13. ARTILLERY

Guns must unlimber to fire (half their movement) and limber to move. Each battery carries a limited number of long-range fire missions (Union 30, Confederate 22); when they are spent it fires canister only, to 240 yards. Casualties among the gunners silence guns. Gunners whose battery routs beside the enemy abandon the pieces.

14. AMMUNITION AND NIGHT

Heavy firing empties cartridge boxes: low boxes halve fire; empty ones stop it. Regiments well back from the enemy refill. At night the armies rally, every regiment refills, the Union reserve refills its batteries fully and the Confederate batteries partly, and troops in woods or on high ground dig breastworks.

15. BRIGADE ORDERS, MACHINE COMMANDS AND FOG OF WAR

March brigade (☐, then a click) forms the whole brigade of the selected regiment in a line centred where you click, facing the way it marched; each regiment goes as far as its movement allows and the brigadier rides with the centre. **Brigade volley** (☐) fires every regiment of the brigade that can, each at the target it would hurt most. Under **Machine commands**, tick a corps and the machine general moves it at the start of each of your turns. With **fog of war** you see enemy pieces only within two hexes of your own, or within 1,920 yards in sight of them; the machine general is not blindfolded.

Enemy fire zones (the Map option, or ☐) shade every hex that some enemy regiment or unlimbered battery could fire into as it now faces, in range and in sight — pale where little fire falls, deep red where much does. Pointing at a hex reads the figure: about how many men a steady line in the open would lose to one round from every firer there, adjusted for the ground. The zones are a guide, not a promise: the enemy may turn, and defensive fire is limited to two pieces. Under fog of war only the enemies you can see are counted.

16. VICTORY

Each side scores 1 point per hundred enemy casualties (prisoners included), 1 per gun captured, 2 / 4 / 8 / 15 for each enemy brigade, division, corps or army commander struck down, and the value of each objective held at the end.

The margin (Confederate minus Union) is compared with the scenario's **par** — the average of many battles between the machine generals on both sides. Within 6 of par the battle is drawn; 6–15 beyond it is a marginal victory, 16–31 substantive, 32 or more decisive.

The verdict sheet ends with **The course of the battle**: each side's casualties turn by turn, and where the margin stood against par had the battle ended at that turn.

17. THE SCENARIOS

McPherson's Ridge Small

July 1, 1863, 8:00 AM to 12:00 PM · 13 turns · Confederate moves first · par US +14

Buford's troopers, dismounted, hold McPherson's Ridge against Heth's leading brigades while Reynolds hurries the I Corps up the Emmitsburg Road. Hold the ridge and the Seminary until noon.

Objectives: McPherson's Ridge (6), McPherson farm (4), Railroad Cut (4), Lutheran Seminary (10), Herr Ridge (4). **Reinforcements:** 12 scheduled arrivals.

Oak Hill & Barlow's Knoll Large

July 1, 1863, 1:40 PM to 4:40 PM · 10 turns · Confederate moves first · par US +60

Rodes comes down off Oak Hill onto the I Corps' flank while Heth and Pender press from the west; at 2:20 Early's division strikes the XI Corps at Barlow's Knoll. Can the Union hold north and west of the town — or at least keep Cemetery Hill?

Objectives: Oak Ridge (5), McPherson's Ridge (4), Lutheran Seminary (8), Barlow's Knoll (4), Gettysburg (10), Cemetery Hill (20). **Reinforcements:** 2 scheduled arrivals.

Little Round Top Small

July 2, 1863, 4:20 PM to 7:00 PM · 9 turns · Confederate moves first · par US +5

Hood's Texans and Alabamians swing round the Union left toward the undefended Little Round Top. Vincent's brigade races up the reverse slope with minutes to spare; Ward holds Houck's Ridge and Devil's Den.

Objectives: Little Round Top (20), Big Round Top (4), Devil's Den (6), Houck's Ridge (4), Rose Woods (3). **Reinforcements:** 8 scheduled arrivals.

The Wheatfield & the Peach Orchard Large

July 2, 1863, 4:00 PM to 7:40 PM · 12 turns · Confederate moves first · par US +5

Sickles has pushed the III Corps forward into a salient at the Peach Orchard. Longstreet's assault rolls in from the south — Hood, then McLaws, then Anderson — while Meade feeds brigade after brigade into the Wheatfield whirlpool.

Objectives: Peach Orchard (10), The Wheatfield (8), Stony Hill (4), Devil's Den (5), Little Round Top (15), Cemetery Ridge (15), Trostle farm (4), Emmitsburg Road line (6). **Reinforcements:** 13 scheduled arrivals.

East Cemetery Hill Medium

July 2, 1863, 4:00 PM to 8:00 PM · 13 turns · Confederate moves first · par US +47

Latimer's guns open from Benner's Hill on the Union right. Toward seven Johnson's division fords Rock Creek against Greene's lone brigade on Culp's Hill; at dusk Hays's Louisiana Tigers and Avery's North Carolinians climb East Cemetery Hill into the XI Corps batteries. Carroll's brigade is coming across from Cemetery Ridge.

Objectives: Cemetery Hill (20), East Cemetery Hill (10), Culp's Hill (12), Lower Culp's Hill (5), Baltimore Pike (10), Benner's Hill (4).

Reinforcements: 2 scheduled arrivals.

Culp's Hill Medium

July 3, 1863, 4:40 AM to 11:00 AM · 20 turns · Union moves first · par US +48

Johnson's division has a lodgement in the empty trenches of lower Culp's Hill, a few hundred yards from the Baltimore Pike. At dawn the XII Corps guns open and the fight for the hill resumes behind Greene's breastworks.

Objectives: Culp's Hill (20), Lower Culp's Hill (8), Spangler's Spring (6), Baltimore Pike (15), Power's Hill (6). **Reinforcements:** 4 scheduled arrivals.

Pickett's Charge Large

July 3, 1863, 1:00 PM to 4:20 PM · 11 turns · Confederate moves first · par US +66

At one o'clock some 150 Confederate guns open on Cemetery Ridge. When the long-range ammunition is spent, Pickett, Pettigrew and Trimble go forward across three-quarters of a mile of open ground toward a copse of trees and a low stone wall.

Objectives: The Angle (25), Copse of trees (10), Ziegler's Grove (5), Cemetery Ridge (10), Cemetery Hill (12). **Reinforcements:** 3 scheduled arrivals.

The Three Days of Gettysburg Grand

July 1, 1863, 7:00 AM to July 3, 1863, 6:00 PM · 123 turns · Confederate moves first · par US +71

The whole battle. Two cavalry brigades on McPherson's Ridge at dawn; by the third afternoon, 160,000 men and 570 guns on the field. Both armies arrive by their historical roads at their historical hours; after that, the history is yours.

Objectives: Cemetery Hill (30), Culp's Hill (20), Little Round Top (15), The Angle (15), Gettysburg (10), Lutheran Seminary (8), Peach Orchard (5), Big Round Top (4), McPherson's Ridge (3), Oak Ridge (3). **Reinforcements:** 62 scheduled arrivals.

18. THE ARMIES

Army	Corps	Commander	Divisions	Regiments	Men	Batteries	Guns
Union	I Corps	Reynolds	3	32	11,408	5	28
Union	II Corps	Hancock	3	44	10,210	5	28
Union	III Corps	Sickles	2	37	9,976	5	30
Union	V Corps	Sykes	3	34	9,801	5	26
Union	VI Corps	Sedgwick	3	36	12,399	8	48
Union	XI Corps	Howard	3	26	8,530	5	26
Union	XII Corps	Slocum	2	28	9,144	4	20
Union	Cavalry Corps	Pleasanton	2	15	5,886	2	10
Union	Artillery Reserve	Tyler	0	0	0	18	100
Confederate	First Corps	Longstreet	3	52	18,323	21	88
Confederate	Second Corps	Ewell	3	61	18,751	20	80
Confederate	Third Corps	Hill	3	56	19,839	20	85

Engaged strengths, rounded; some are estimates. Stuart's cavalry, which fought east of the field, and the Union cavalry at East Cavalry Field are not on the map.

19. CONTROLS

Action	Mouse / touch	Keyboard
Select a piece (cycle a stack)	click / tap	N next regiment
March	click a pale hex	—
Fire	click a red-ringed enemy	F show targets
Charge	Charge, then click	C
Face left / right	buttons	Q / E
Line / column; limber; mount	buttons	L ; U ; M
March brigade; brigade volley	buttons	B ; V
Enemy fire zones	Map option	T
Undo the last march	button	Z
End turn	End turn	Enter
Pan / zoom	drag; wheel or pinch; the overview map	arrows; + - 0

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