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1.0 Overview

The Battle of Gettysburg began the morning of July 1, 1863 when Henry Heth's Division of A. P. Hill's Corps advanced against John Buford's cavalry division on Herr Ridge. As Buford's two brigades fell back to McPherson's Ridge, they were reinforced by two divisions of the Union I Corps. Maj. Gen. John Reynolds was shot and killed while positioning the the I Corps troops.

Both sides received reinforcements during the early afternoon. On the Union side, XI Corps arrived and took position north of Gettysburg on fairly level ground. About 2:30 that afternoon the Confederates attacked again, with Ewell's Corps advancing from the north. The unexpected arrival of Early's Division on the open right flank of the XI Corps caused it to collapse, and the corps' retreat forced the I Corps to fall back from its positions on McPherson's Ridge. The Union forces were able to rally on Cemetery Hill and Ridge, and there received reinforcements.

On the morning of the second day, Ewell's Corps attacked Culp's Hill while two divisions from Longstreet's Corps marched to the battlefield. That afternoon, after marching and countermarching to avoid detection by Union forces on Little Round Top, the divisions of Hood and McLaws attacked the Union III Corps in its exposed position along the Emmitsburg Road. The V Corps rushed to reinforce the III Corps' positions, but after desperate fighting in the Peach Orchard, the Wheatfield (which changed hands six times) and Devil's Den, the Union line gave way and was barely stabilized along Cemetery Ridge and Little Round Top. The 20th Maine in particular played an important role in preventing the Confederates from taking Little Round Top on the Federals' extreme left flank.

On the other flank, Ewell's Corps attacked late in the afternoon in an attempt to capture Cemetery and Culp's hills, but in fighting that went on into the night failed to make any significant gains.

On the third day Lee formed a plan to attack the center of the Union line using Pickett's Division (his last fresh division) and two other divisions that had seen action on the first day. This attack was preceded by a massive artillery bombardment by most of the available Confederate artillery. The 12,000-man assault began around 3 PM, and culminated in fierce fighting along a stone wall at the point that would later be called "The Angle". A minor penetration of the Union line was achieved, but within a few minutes had been eliminated. The Confederates, having taken over 6,500 casualties, retreated to their original positions. The next day the Confederate Army began its retreat back to Virginia.

The Army of the Potomac had numbered about 82,000 and the Confederate Army some 75,000 men at the battle. Total casualties (killed, wounded, captured and missing) according to one source were 23,001 and 20,448 respectively. The engagement is generally accepted to have been the

turning point of the Civil War.

2.0 Map Notes

Since the map is longer in the North-to-South direction, it is oriented with West-to-East running vertically to take advantage of the dimensions of the typical computer screen.

The elevation data for the map are taken directly from United States Geological Survey data. The result differs from some "classical" maps of the battlefield in several ways. As others have noted, Cemetery Ridge is very modest in terms of elevation change and is not nearly as imposing a defensive line as some maps have portrayed it. Likewise, Seminary Ridge is a gentle slope and in fact terminates farther south where it is replaced by Warfield Ridge.

3.0 Notes on the Forces

The main source for the Order of Battle was Nofi's book "The Gettysburg Campaign". It contains detailed information on the number of infantry and cavalry in each regiment and the number and types of cannons in each artillery battery.

The books "Wargaming in History" by Stevenson and "Pickett's Charge" by Stewart are excellent sources on Civil War tactics at the regimental and brigade level. In particular, Stewart's book contains a detailed account of the moves and turns performed by the Confederates during Pickett's charge. The movements by "left oblique" performed by Pickett's Division during the attack are particularly noteworthy since they dictate the necessity for allowing movement into hexes other than the facing hex. The description on page 184 of Stewart's book and the map on page 185 explain the "sidling" done by Pickett's Division quite well.

As always in the Civil War, infantry and cavalry weapon types are based on sketchy information. A few Union units were equipped with smoothbore muskets. In all other infantry units the predominate weapon was the rifle, with some exceptions such as in sharpshooter units. The Union cavalry was equipped with carbines, while a large number of Confederate cavalry had nothing more than pistols. The book "Regimental Strengths and Losses at Gettysburg" was invaluable for its detailed information concerning weapon types in the Union Army.

Although the Union batteries were quite uniform in content, the Confederates tended to have a mixture of different cannon types in each battery. The type assigned to each Confederate battery in the game is based on its predominant weapon type to avoid having to break the batteries up into sections.

Maj. Gen. Isaac Trimble is not represented in the Order of Battle. Although he was a supernumerary in the Confederate Army and led Pender's Division on the third day, the current version of the game does not support the type of dynamic assignments that would support this role. For similar reasons Brig. Gen. Gouverneur K. Warren, the Union engineer officer who discovered that Little Round Top was undefended and rushed reinforcements to it, is not represented.

4.0 Confederate Notes

The Confederates need to be aggressive on the first day, as it will be the only time they enjoy a numerical superiority. They should attack regardless of which positions the Union forces occupy.

Depending on the outcome of the first day's fighting, the Confederates will probably be limited to flank attacks on the second. There will be little or no chance for a successful frontal attack on the Union line unless on the previous day the Confederates suffered lightly while inflicting severe losses on the Federals.

If the Union forces have not been defeated after two days of fighting, the Confederates will have to be watchful of a potential Union counterattack on the third day.

5.0 Union Notes

The biggest decision the Union side will have to make on the first day is whether to attempt to defend the historical line which included McPherson's Ridge, or to fall back before the inevitable attack of the Confederate II Corps to Cemetery Hill/Ridge and Culp's Hill. Given the weakness of the small Union XI Corps, it will be hard pressed to aid the I Corps in a defense of the historical positions.

Assuming that these heights can be held the first day, the Union forces will be reinforced to the point that they should be able to hold the historical second- and third-day lines. By the third day, if the Confederates opt to attack on the flanks and not charge the middle of the Union line, the Union side may be able to consider an attack of its own.

6.0 Chronological Order

July 1, 1863

- 5:00 AM Heth's Division advances.
- 8:00 AM Archer's and Davis' Brigades with Pegram's artillery attack Buford on Herr Ridge.
- 9:00 AM Union cavalry forced back to McPherson's Ridge.
- 10:00 AM Reynolds finds Buford on McPherson's Ridge.
- 10:30 AM Wadsworth's 1st Division (I) reaches McPherson's Ridge.
- 11:00 AM Reynolds is killed.
Howard reaches Gettysburg.
- 11:30 AM Rowley's 3rd Division (I) minus Stannard's Brigade reaches Union line on the Fairfield Road.
Robinson's 2nd Division (I) reaches Union line.
- 12:00 N Fighting on McPherson's Ridge stops.
Schurz arrives at Cemetery Hill.
- 1:00 PM Schurz's 3rd Division (XI) reaches Gettysburg.
Barlow's 1st Division (XI) reaches Gettysburg.
- 2:00 PM Lee arrives at scene.
Union XI Corps completes deployment north of Gettysburg.
Steinwehr's 2nd Division (XI) arrives at Cemetery Hill.
- 2:30 PM Confederates attack (Rhodes Division and Hill's Corps).
- 3:30 PM Early's Division attacks.
- 4:00 PM Union line falls back to Cemetery Hill.
- 4:30 PM Confederates take Gettysburg.
Hancock reaches Cemetery Hill.
- 5:00 PM Longstreet joins Lee on Seminary Ridge.
Stannard's Brigade (3/I) arrives.
- 5:30 PM XII Corps without William's Division arrives.
William's 1st Division (XII) minus Lockwood's Brigade prepares to attack Benner's Hill.
- 7:00 PM Slocum arrives and takes command.
- 7:30 PM III Corps minus two brigades arrives.

July 2, 1863

- 3:00 AM Hood's Division minus Law's Brigade resumes march to Gettysburg.
- 4:30 AM McLaw's Division resumes march to Gettysburg.
- 6:00 AM II Corps arrives.
- 8:00 AM II Corps takes position on Cemetery Ridge.
Lockwood's Brigade (1/XII) minus one regiment arrives.
Barnes' and Ayres' Divisions (V) arrive.
- 9:30 AM Final two brigades of III Corps under Graham arrive.

- 12:00 N Crawford's Division (V) arrives.
Law's Brigade rejoins Hood's Division.
Longstreet begins flanking march.
- 2:00 PM Buford's Division withdraws.
- 2:30 PM VI Corps begins arriving.
- 4:00 PM Longstreet attacks with Hood's Division.
- 4:30 PM 15th Alabama attacks 20th Maine on Little Round Top.
- 5:30 PM McLaw's Division begins attack.
- 6:30 PM Ewell's Corps attacks Culp's Hill.

July 3, 1863

- 4:30 AM Fighting on Culp's Hill renewed.
- 11:00 AM Battle for Culp's Hill ends.
- 1:00 PM Confederate artillery bombardment begins.
- 3:00 PM Pickett's charge.
Cavalry fight east of battlefield.
- 5:30 PM Kilpatrick attacks Confederate right flank.

7.0 Weapon Descriptions

Code	Description
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B Sharps .52-caliber Breechloading Rifle.

Only three regiments were armed with this weapon at Gettysburg: the 14th Connecticut, and the 1st and 2nd U.S. Sharpshooters. The Sharps breechloading rifle had a barrel length of 30 or 36 inches and the Sharps disc priming device. The "disc primer" held a column of copper priming caps; when the hammer fell, it pushed a primer cap onto the nipple and fired it. When the hammer was re-cocked, another cap was automatically positioned for the next shot. With its disc primer and breechloading mechanism, the Sharps rifle became a very formidable weapon. It was very reliable under adverse conditions and could fire at a very high rate. Total production for the U.S. Government reached 9500.

C Sharps & Burnside Carbine.

The Union cavalry was armed with carbines, the majority of which were the Sharps .52-caliber and the Burnside.

The Sharps carbine was a breechloader with the Sharps disc priming device. It was a .52-caliber single shot weapon with a 21.25-inch barrel. The trooper would lower the trigger guard, which enabled the breech block to drop, thus opening the chamber to allow the insertion of a linen cartridge. Closing the chamber would cause the end of the cartridge to be cut, exposing the powder. The "disc primer" held a column of copper priming caps; when the hammer fell, it pushed the cap onto the nipple and fired it. When the hammer was re-cocked, another primer cap was automatically positioned for the next shot. The Sharps carbine was very reliable, and over 115,000 were made.

The Burnside carbine, designed by Union major-general Ambrose E. Burnside, was one of the most widely used carbines of the war. It was a .54-caliber, single-shot weapon that used a special brass cartridge of Burnside's invention. The brass case contained a charge of black powder with a hole in the base which was exposed to the flame produced by the percussion cap. The case also provided a seal at the joint between the barrel and breech block, preventing the disagreeable blast of hot gas produced by other carbines. Burnside's carbine was a great success, and more than 55,000 were manufactured.

H 12-pounder Howitzer

The 1841 pattern 12-pounder field howitzer was a smoothbore, muzzle-loading howitzer with a caliber of 4.62 inches. In 1862 it was replaced by the Napoleon in the Union Army, but was retained in the Confederate Army for want of anything better. It could fire a 12-lb. shell effectively to a range of 1072 yards, and a spherical case to a maximum range of 1050 yards.

M Smoothbore Musket

By the middle of the Civil War, the Smoothbore Musket had been replaced almost entirely by the rifled musket. Even though the smoothbore could be loaded faster, it was accurate only out to about 100 yards. Some still even had flintlocks, which made them identical to those used during the War of Independence. Only a dozen regiments at Gettysburg were armed with the smoothbore musket.

N 12-pounder Napoleon

The most common field gun in the arsenal of both sides during the Civil War was the 12-pounder Napoleon. From the Napoleonic Wars to around 1850, artillery batteries had a mixture of cannons, usually half field guns and half howitzers, so as to be able to fire explosive shells and solid shot. The Napoleon was a smoothbore, muzzle-loading fieldpiece with a caliber of 4.62 inches, developed under the auspices of Napoleon III, and designed to provide an alternative to the need for mixed types of artillery in batteries. It could fire solid shot against masses of troops 600 to 2,000 yards away, and spherical case shot was used at ranges of 500 to 1,500 yards. A 12-lb. shell could be fired from 300 to 1,500 yards, but was less effective at the lower end of its range. Canister, which emitted a "spray" of golf-ball size projectiles, could be fired effectively vs massed enemy troops at 500 yards or less. The Napoleon's higher rate of fire complemented the rifled field gun's greater accuracy at long range.

P Pistol

The Colt Army Model 1860 was the most widely used revolver of the War. It was a streamlined .44-caliber, single-action weapon. Between 1861 and 1863 over 107,000 revolvers were furnished to the War Department of the United States. In November of 1861, Remington won a contract and began furnishing the Remington New Model Army .44 Revolver.

The Colt 1851 Navy Revolver, also called the Old Model Belt Pistol, was the best known of the Colt revolvers. It was a .36-caliber, single-action piece with an octagonal barrel 7.5 inches long, and weighed only two pounds, ten ounces. It remained more popular in the South and was the prototype of practically all confederate-made revolvers. Over 200,000 were used during the war.

The Starr Army Percussion Revolver was the third most popular revolver of the war. It was a .44-caliber, six-shot, double-action weapon. (Double-action meant that when the trigger was squeezed the hammer rose and fell while the cylinder rotated simultaneously, as opposed to single-action which required that the hammer be cocked manually before the trigger could be pulled.) The Starr weighed almost 3 pounds and was 12 inches long. It fired a self-consuming, combustible cartridge, and could also be loaded with loose powder and ball. Over 50,000 were furnished during the war.

The Confederacy had no standard pistol per se, but captured Colts and Colt copies made in the South were the revolvers its men used most commonly. In addition, it acquired several types of European revolvers, the

most popular being the Adams .49-caliber Dragoon, the Tranter .44 revolver, the Lefauchaux 11-mm pinfire revolver, and the Le Mat. Almost all Confederate-made revolvers were imitations of the .36-caliber Colt 1851 Navy, of which less than 12,000 were made.

R Rifle

Although a great variety of small arms saw use during the war, the principal weapon on both sides was the .58-caliber Springfield Rifle Musket. The North supplemented its arsenal as well with the .577-caliber Enfield 1853-Pattern Rifle Musket. Over 3,500,000 rifles were purchased by the North and South.

The .58-caliber Springfield rifle musket had a barrel 40 inches long and an automatic priming device called the Maynard Tape Primer System. The latter worked like a child's roll-cap pistol, with a paper tape containing fulminate patches that were fed over the nipple by the action of the hammer. The only problem with the system was that if the paper became damp it often failed to work. The rifle fired a minie ball - a lead bullet that expanded to fit the rifling so the bullet would spin.

S Repeating Rifle or Carbine

The Spencer Repeating Carbine fired a .52-caliber copper rimfire bullet. Because the bullet contained its own primer encased in copper, it was much more reliable than ignition systems that required primer caps or tapes. The magazine could hold seven rounds, and was loaded through the center of the buttstock. Ten magazines could be carried in a special box, giving the soldier seventy rounds of readily available ammunition. The carbine had a total length of 39 inches and weighed 8.25 pounds. Because the bullet contained only 45 grains of black powder, the gun lacked range and muzzle power. None of the units at Gettysburg were equipped with the Spencer Repeater.

T Rifled Cannon

The majority of rifled cannons in Civil War artillery batteries comprised the 10-pounder Parrott Gun and the 3-inch Ordnance Rifle. The main function of these guns was to fire at the enemy beyond the shorter range of the howitzers.

The 10-pounder Parrott was a muzzle-loading, rifled gun with a bore of 2.9 inches. It resembled the Napoleon in appearance, save for its black barrel with tell-tell heavy iron reinforcing bands around the breech. Despite its reinforced breech, the Parrott developed a reputation for bursting just ahead of the breech-bands after lengthy use. Its 2,000-yard range made it useful for counter-battery fire. Although the Parrott was rifled, it could still fire canister at charging infantry.

The 3-inch Ordnance Rifle was made of heavy wrought iron, and had a better reputation for dependability than the Parrott. A disadvantage of the Ordnance Rifle was its weight, which made it more difficult to move in soft ground or bad weather.

W 12-pounder Whitworth

The 12-pounder Whitworth was an English breechloading, rifled cannon. The

bore was hexagonal in cross-section, and the projectile was a long bolt with twisting surfaces that conformed to the rifling. It had a caliber of 2.75 inches. Although an explosive shell was made for it, the shape of the projectile did not permit a sufficient amount of powder to make it effective. Therefore, solid shot was the principal ammunition. At an elevation of 5 degrees it had a range of 2,800 yards, and at 35 degrees its maximum range was 10,000 yards. Very few of these guns were used by either side, though the South used them more than the North.

8.0 Arrival Schedule

Each arrival is assigned an entry hex, and an arrival date and time. In addition, each is assigned a **protected distance** value which is shown in the column entitled **Prot** in the schedules; see 8.1 Arrival Schedule (First Day) and 8.2 Arrival Schedule (Second and Third Days). If this value is other than zero, it indicates that the arrival is "protected". In a protected arrival, the appearance of friendly units in the arrival hex automatically causes all enemy units in that hex to be eliminated and all enemy units within the given number of hexes (i.e., the protected distance) of that hex to become routed. The purpose of this rule is to prevent "crowding" of the arrival hex by enemy units trying to take advantage of the limited movement capabilities near the map edge. A protected distance value of zero means that it is possible for enemy units to prevent the arrival of friendly units by occupying their arrival hex.

The name of the first unit in each arrival group is given in the 8.1 and 8.2 schedules. An arrival group comprising more than one unit is indicated by three dots (...).

8.1 Arrival Schedule (First Day)

Date	Side	Hex	Prot	Name
08:00	07/01/1863	Rebel (85,0)	0	Crenshaw Va Btty, ...
08:20	07/01/1863	Rebel (85,0)	0	Maj. Gen. Henry Heth
08:20	07/01/1863	Rebel (85,0)	5	Brig. Gen. J. J. Pettigrew, ...
08:20	07/01/1863	Rebel (85,0)	5	Col. J. M. Brockenbrough, ...
09:00	07/01/1863	Rebel (85,0)	0	Donaldsonville La, ...
09:00	07/01/1863	Rebel (85,0)	0	Supply Wagon
09:40	07/01/1863	Union(0,20)	0	Brig. Gen. J. C. Robinson
09:40	07/01/1863	Union(0,20)	5	Brig. Gen. Gabriel Paul, ...
09:40	07/01/1863	Union(0,20)	5	Brig. Gen. Henry Baxter, ...
10:00	07/01/1863	Rebel (85,0)	0	Lt. Gen. Ambrose P. Hill
10:00	07/01/1863	Union(0,20)	0	5th Btty (E) Maine Lt, ...
10:00	07/01/1863	Union(0,20)	0	Supply Wagon
10:00	07/01/1863	Union(0,20)	0	Maj. Gen. Oliver O. Howard
10:40	07/01/1863	Union(0,20)	0	Brig. Gen. Francis Barlow
10:40	07/01/1863	Union(0,20)	5	Col. Leopold von Gilsa, ...
10:40	07/01/1863	Union(0,20)	5	Brig. Gen. Adelbert Ames, ...
11:00	07/01/1863	Rebel (85,0)	0	Maj. Gen. William D. Pender
11:00	07/01/1863	Rebel (85,0)	5	Brig. Gen. James Lane, ...
11:00	07/01/1863	Rebel (85,0)	5	Brig. Gen. Edward Thomas, ...
11:00	07/01/1863	Union(44,0)	0	Maj. Gen. Abner Doubleday
11:00	07/01/1863	Union(44,0)	5	Brig. Gen. Thomas Rowley, ...
11:00	07/01/1863	Union(44,0)	5	Col. Roy Stone, ...
11:00	07/01/1863	Union(44,0)	0	Supply Wagon
11:00	07/01/1863	Union(0,20)	0	Supply Wagon
11:00	07/01/1863	Union(0,45)	0	Maj. Gen. Carl Schurz
11:00	07/01/1863	Union(0,45)	5	Brig. Gen. Schimmelfennig, ...
11:00	07/01/1863	Union(0,45)	5	Col. Wladimir Krzyzanowski, ...
11:00	07/01/1863	Union(0,45)	0	Supply Wagon
11:00	07/01/1863	Union(0,20)	0	Btty I, 1st New York Lt, ...
11:20	07/01/1863	Rebel (85,0)	5	Col. Abner Perrin, ...
11:20	07/01/1863	Rebel (85,0)	5	Brig. Gen. Alfred M. Scales, ...
11:20	07/01/1863	Rebel (85,0)	0	Danville Virginia, ...
11:20	07/01/1863	Rebel (85,0)	0	Supply Wagon
12:00	07/01/1863	Union(0,45)	0	Brig. Gen. Adolph von Steinwehr
12:00	07/01/1863	Union(0,45)	5	Col. Charles Coster, ...
12:00	07/01/1863	Union(0,45)	5	Col. Orland Smith, ...
12:20	07/01/1863	Union(0,45)	0	13th Btty, New York Lt, ...
12:20	07/01/1863	Union(0,45)	0	Supply Wagon
12:40	07/01/1863	Rebel (89,28)	0	Maj. Gen. Robert E. Rodes
12:40	07/01/1863	Rebel (89,28)	5	Brig. Gen. Junius Daniel, ...
13:00	07/01/1863	Rebel (89,28)	5	Brig. Gen. Alfred Iverson, ...
13:00	07/01/1863	Rebel (89,28)	5	Brig. Gen. Stephen Ramseur, ...

13:20 07/01/1863Rebel (89,40)	5 Brig. Gen. George Doles, ...
13:20 07/01/1863Rebel (89,40)	5 Col. Edward A. O'Neal, ...
13:20 07/01/1863Rebel (89,40)	0 Jeff Davis Alabama, ...
13:20 07/01/1863Rebel (89,40)	0 Supply Wagon
13:40 07/01/1863Rebel (85,0)	0 Gen. Robert E. Lee
13:40 07/01/1863Rebel (89,58)	0 Lt. Gen. Richard S. Ewell
13:40 07/01/1863Rebel (89,58)	0 Maj. Gen. Jubal A. Early
13:40 07/01/1863Rebel (89,58)	5 Col. Isaac Avery, ...
13:40 07/01/1863Rebel (89,58)	5 Brig. Gen. Harry T. Hays, ...
14:00 07/01/1863Rebel (89,58)	5 1st Maryland Bn
14:00 07/01/1863Rebel (89,58)	5 Brig. Gen. John B. Gordon, ...
14:00 07/01/1863Rebel (89,58)	5 Brig. Gen. William Smith, ...
14:00 07/01/1863Union (0,20)	5 41st New York
14:20 07/01/1863Rebel (89,58)	0 Charlottesville Va, ...
14:20 07/01/1863Rebel (89,58)	0 Supply Wagon
14:40 07/01/1863Union (0,20)	5 7th Indiana
14:40 07/01/1863Rebel (89,58)	5 Brig. Gen. Albert J. Jenkins, ...
15:00 07/01/1863Rebel (85,0)	0 Lt. Gen. James Longstreet
15:00 07/01/1863Union (0,20)	5 Brig. Gen. George Stannard, ...
15:20 07/01/1863Rebel (85,0)	0 Maj. Gen. R. H. Anderson
15:20 07/01/1863Rebel (85,0)	5 Brig. Gen. Cadmus Wilcox, ...
15:40 07/01/1863Rebel (85,0)	5 Col. David Lang, ...
15:40 07/01/1863Union (0,45)	0 Maj. Gen. Winfield Scott Hancock
16:00 07/01/1863Rebel (85,0)	5 Brig. Gen. A. R. Wright, ...
16:00 07/01/1863Rebel (85,0)	5 Brig. Gen. William Mahone, ...
16:20 07/01/1863Rebel (85,0)	5 Brig. Gen. Carnot Posey, ...
16:20 07/01/1863Rebel (85,0)	0 Company A, ...
16:20 07/01/1863Rebel (85,0)	0 Supply Wagon
16:20 07/01/1863Union (18,69)	0 Brig. Gen. Alpheus S. Williams
16:20 07/01/1863Union (18,69)	5 Col. Archibald McDougall, ...
16:20 07/01/1863Union (18,69)	5 Brig. Gen. Thomas Rugar, ...
16:40 07/01/1863Union (18,69)	0 Brig. Gen. John W. Geary
16:40 07/01/1863Union (18,69)	5 Col. Charles Candy, ...
16:40 07/01/1863Union (18,69)	5 Col. George Cobham, Jr., ...
16:40 07/01/1863Union (18,69)	5 Brig. Gen. George Greene, ...
17:00 07/01/1863Union (18,69)	0 Btty M, 1st NY Lt, ...
17:00 07/01/1863Union (18,69)	0 Supply Wagon, ...
17:20 07/01/1863Union (0,20)	0 Maj. Gen. David B. Birney
17:20 07/01/1863Union (0,20)	5 Brig. Gen. Charles Graham, ...
17:20 07/01/1863Union (0,20)	5 Brig. Gen. J. H. Ward, ...
17:20 07/01/1863Union (18,69)	0 Maj. Gen. Henry W. Slocum
17:40 07/01/1863Union (0,20)	0 Btty B, 2nd New Jersey, ...
17:40 07/01/1863Union (0,20)	0 Supply Wagon
18:20 07/01/1863Rebel (85,0)	0 Maj. Gen. Edward Johnson
18:20 07/01/1863Rebel (85,0)	5 Brig. Gen. Geo. H. Stuart, ...
18:20 07/01/1863Rebel (85,0)	5 Col. J. M. Williams, ...

18:40	07/01/1863	Rebel (85,0)	5	Brig. Gen. James Walker, ...
18:40	07/01/1863	Rebel (85,0)	5	Brig. Gen. John Jones, ...
19:00	07/01/1863	Rebel (85,0)	0	1st Maryland Btty, ...
19:00	07/01/1863	Rebel (85,0)	0	Supply Wagon
19:00	07/01/1863	Union(0,20)	0	Maj. Gen. Daniel Sickles
19:20	07/01/1863	Rebel (85,0)	0	Amherst Virginia, ...
19:20	07/01/1863	Rebel (85,0)	0	2nd Richmond Howitzers, ...
20:00	07/01/1863	Union(0,20)	0	Brig. Gen. Andrew A. Humphreys
20:00	07/01/1863	Union(0,20)	5	Brig. Gen. Joseph Carr, ...
20:00	07/01/1863	Union(0,20)	5	Col. William Brewster, ...
20:00	07/01/1863	Union(0,20)	0	Supply Wagon
23:00	07/01/1863	Union(0,20)	0	Maj. Gen. George G. Meade

8.2 Arrival Schedule (Second and Third Days)

Date	Side	Hex	Prot	Name
04:00	07/02/1863	Rebel (85,0)	0	Maj. Gen. John B. Hood
04:00	07/02/1863	Rebel (85,0)	5	Brig. Gen. Jerome B. Robertson, ...
04:00	07/02/1863	Rebel (85,0)	5	Brig. Gen. George Anderson, ...
04:00	07/02/1863	Rebel (85,0)	5	Brig. Gen. Henry Benning, ...
04:40	07/02/1863	Rebel (85,0)	0	German S Carolina, ...
04:40	07/02/1863	Rebel (85,0)	0	Supply Wagon
05:00	07/02/1863	Union(0,45)	0	Brig. Gen. John Caldwell
05:00	07/02/1863	Union(0,45)	5	Col. Edward Cross, ...
05:00	07/02/1863	Union(0,45)	5	Col. Patrick Kelly, ...
05:00	07/02/1863	Union(0,45)	5	Brig. Gen. Samuel Zook, ...
05:00	07/02/1863	Union(0,45)	5	Col. John Brooke, ...
05:00	07/02/1863	Union(0,45)	0	Supply Wagon
05:20	07/02/1863	Union(0,45)	0	Brig. Gen. Alexander Hays
05:20	07/02/1863	Union(0,45)	5	Col. Samuel S. Carroll, ...
05:20	07/02/1863	Union(0,45)	5	Col. Thomas Smyth, ...
05:20	07/02/1863	Union(0,45)	5	Col. George Willard, ...
05:40	07/02/1863	Rebel (85,0)	0	Maj. Gen. Lafayette McLaws
05:40	07/02/1863	Rebel (85,0)	5	Brig. Gen. Jos. B. Kershaw, ...
05:40	07/02/1863	Rebel (85,0)	5	Brig. Gen. Paul J. Semmes, ...
05:40	07/02/1863	Rebel (85,0)	5	Brig. Gen. William Barksdale, ...
05:40	07/02/1863	Union(0,45)	0	Brig. Gen. John Gibbon
05:40	07/02/1863	Union(0,45)	5	Brig. Gen. William Harrow, ...
05:40	07/02/1863	Union(0,45)	5	Brig. Gen. Alexander Webb, ...
05:40	07/02/1863	Union(0,45)	5	Col. Norman Hall, ...
06:00	07/02/1863	Rebel (85,0)	5	Brig. Gen. William T. Wofford, ...
06:00	07/02/1863	Rebel (85,0)	0	Btty A, 1st N Carolina, ...
06:00	07/02/1863	Rebel (85,0)	0	Supply Wagon
06:00	07/02/1863	Union(0,45)	0	Btty B, 1st/14th NY Lt, ...
06:00	07/02/1863	Union(0,45)	0	Supply Wagon, ...
06:20	07/02/1863	Union(0,45)	0	Btty H, 1st U.S., ...
06:20	07/02/1863	Union(0,45)	0	2nd Btty, Conn Lt, ...
06:20	07/02/1863	Union(0,45)	0	1st Btty, NH Lt, ...
06:20	07/02/1863	Union(0,45)	0	6th Btty (F), Maine Lt, ...
07:00	07/02/1863	Union(18,69)	5	Brig. Gen. Henry Lockwood, ...
07:20	07/02/1863	Rebel (85,0)	0	Ashland Virginia, ...
07:40	07/02/1863	Rebel (85,0)	0	1st Company, ...
07:40	07/02/1863	Union(18,69)	0	Maj. Gen. George Sykes
07:40	07/02/1863	Union(18,69)	0	Brig. Gen. James Barnes
07:40	07/02/1863	Union(18,69)	5	Col. William Tilton, ...
07:40	07/02/1863	Union(18,69)	5	Col. Jacob Sweitzer, ...
07:40	07/02/1863	Union(18,69)	5	Col. Strong Vincent, ...
07:40	07/02/1863	Union(0,45)	0	Brig. Gen. Charles Graham

07:40 07/02/1863Union(0,45)	5 Col. P. R. de Trobriand, ...
07:40 07/02/1863Union(0,45)	5 Col. George Burling, ...
07:40 07/02/1863Union(0,45)	5 4th New York, ...
08:00 07/02/1863Union(18,69)	0 Brig. Gen. Romeyn B. Ayres
08:00 07/02/1863Union(18,69)	5 Col. Hannibal Day, ...
08:00 07/02/1863Union(18,69)	5 Col. Sidney Burbank, ...
08:00 07/02/1863Union(18,69)	5 Brig. Gen. Stephen Weed, ...
08:20 07/02/1863Union(18,69)	0 3rd Btty (C), Mass Lt, ...
08:20 07/02/1863Union(18,69)	0 Supply Wagon, ...
08:40 07/02/1863Union(0,45)	0 5th Btty (E), Mass Lt, ...
11:00 07/02/1863Union(18,69)	0 Brig. Gen. Samuel Crawford
11:00 07/02/1863Union(18,69)	5 Col. William McCandless, ...
11:00 07/02/1863Union(18,69)	5 Col. Joseph Fisher, ...
11:00 07/02/1863Union(18,69)	5 Supply Wagon
11:40 07/02/1863Rebel (89,58)	0 Maj. Gen. J.E.B. Stuart
11:40 07/02/1863Rebel (89,58)	5 Brig. Gen. Wade Hampton, ...
11:40 07/02/1863Rebel (89,58)	5 Brig. Gen. Fitzhugh Lee, ...
11:40 07/02/1863Rebel (89,58)	5 34th Virginia Bn, ...
12:00 07/02/1863Rebel (89,58)	5 Col. John R. Chambliss, Jr., ...
12:00 07/02/1863Rebel (89,58)	0 Breathed's Va Btty, ...
12:00 07/02/1863Rebel (85,0)	5 Brig. Gen. Evander M. Law, ...
15:20 07/02/1863Union(18,69)	0 Maj. Gen. John Sedgwick
15:20 07/02/1863Union(18,69)	0 Brig. Gen. Horatio Wright
15:20 07/02/1863Union(18,69)	5 Brig. Gen. Alfred Torbert, ...
15:20 07/02/1863Union(18,69)	5 Brig. Gen. Joseph Bartlett, ...
15:20 07/02/1863Union(18,69)	5 Brig. Gen. David Russell, ...
15:40 07/02/1863Union(18,69)	0 Brig. Gen. Albion Howe
15:40 07/02/1863Union(18,69)	5 Col. Lewis Grant, ...
15:40 07/02/1863Union(18,69)	5 Brig. Gen. Thomas Neill, ...
16:00 07/02/1863Union(18,69)	0 Maj. Gen. John Newton
16:00 07/02/1863Union(18,69)	5 Brig. Gen. Alexander Shaler, ...
16:00 07/02/1863Union(18,69)	5 Col. Henry Eustis, ...
16:00 07/02/1863Union(18,69)	5 Brig. Gen. Frank Wheaton, ...
16:20 07/02/1863Union(18,69)	0 1st Btty (A), Mass Lt, ...
16:20 07/02/1863Union(18,69)	0 Supply Wagon, ...
16:40 07/02/1863Rebel (85,0)	0 Maj. Gen. George E. Pickett
16:40 07/02/1863Rebel (85,0)	5 Brig. Gen. Richard B. Garnett, ...
16:40 07/02/1863Rebel (85,0)	5 Brig. Gen. James L. Kemper, ...
16:40 07/02/1863Rebel (85,0)	5 Brig. Gen. Lewis A. Armistead, ...
16:40 07/02/1863Rebel (85,0)	0 Fauquier Virginia, ...
16:40 07/02/1863Rebel (85,0)	0 Supply Wagon
16:40 07/02/1863Union(0,45)	0 9th Michigan Btty, ...
18:00 07/02/1863Rebel (85,0)	0 Albemarle Virginia, ...
06:00 07/03/1863Rebel (85,0)	5 11th Mississippi
06:20 07/03/1863Union(18,69)	5 1st Md (Eastern Shore)
13:20 07/03/1863Union(0,20)	5 Brig. Gen. Wesley Merritt, ...

13:20 07/03/1863Union(0,20)
13:20 07/03/1863Union(18,69)
13:20 07/03/1863Union(18,69)
13:20 07/03/1863Union(18,69)

0 Btty K, 1st U.S.
0 Brig. Gen. Judson Kilpatrick
5 Brig. Gen. Elon Farnsworth, ...
0 Btty E & G, 1st U.S.

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10.0 Parameter Data

Time:

Dawn begins at: 4:00 (4am). Dusk begins at: 20:00 (8pm).
 Each daylight turn equals 20 minutes.
 Each night turn equals 60 minutes.

Stacking:

Maximum strength points that can be in a hex is 10.
 Maximum regiments, batteries and/or supply wagons that can be in a hex is 4.
 In addition to the above restrictions 4 leaders may occupy the same hex.
 Exception: Only one supply wagon is allowed per hex.

Fatigue:

Maximum Fatigue a unit can acquire is: 9
 Fatigue from Fire: 1
 Fatigue from Casualties: 1
 Fatigue from Engaging in Melee: 1
 Fatigue from Losing Melee: 1
 Day Fatigue Recovery: 5%
 Night Fatigue Recovery: 20%

Command Radius:

Union Brigade Leader: 2	Confederate Brigade Leader: 3
Union Division Leader: 4	Confederate Division Leader: 6

Breastworks:

Breastwork Construction: 6% probability per strength factor
 Breastwork Movement Penalty: +1 Breastwork Defensive Value: -1

Movement Allowance:

Infantry: 12	Cavalry: 24	
Supply: 24	Dismounted Cavalry: 12	
Artillery: 12	Unlimbered Artillery: 0	

Non-Road Movement Costs:

Unit	Infantry	Cavalry	Artillery	Supply		
Hex	L-C	Mounted	Limbered	Wagon		
Clear:	2 - 2	2		2	3	
Water:		P - P		P	P	P
Forest:	4 - 4		6	8		8
Orchard:	3 - 3		4	6	6	
Marsh:	4 - 4		8	P		P
Town:	4 - 1		2	2	2	
Rough:	4 - 4		8	P		P

Unit	Infantry	Cavalry	Artillery	Supply		
Hexside	L-C	Mounted	Limbered	Wagon		

Stream:	1 - 1	2	2	2
Creek:	P - P	P	P	P
Wood Fence:	1 - 1	2	2	2
Stone Wall:	1 - 1	2	6	6
Rail Cut:	P - P	P	P	P
Up Elevation:	1 - 1	2	2	2
Breastworks:	+1	+1	+1	+1

NOTES:

= Movement Point Cost to enter hex or cross hexside.

P = Prohibited. Unit cannot enter hex or cross hexside.

+# = Additional Movement Point Cost to cross hexside.

L = Infantry in Line Formation.

C = Infantry in Column Formation.

Dismounted Cavalry move as Infantry in Line Formation.

Dismounted Leaders move as Infantry in Column Formation.

Mounted Leaders move as Mounted Cavalry.

Road Movement Costs:

Unit	Infantry	Cavalry	Artillery	Supply
Hex	L-C	Mounted	Limbered	Wagon
Trail:	* - 2	2	2	2
Road:	* - 1	1	1	2
Pike:	* - 1	1	1	1
Rail:	* - 2	2	2	2

NOTES:

= Movement Point Cost to enter hex via Road Movement.

* = Unit does not get benefit of using Road Movement.

L = Infantry in Line Formation.

C = Infantry in Column Formation.

Dismounted Cavalry move as Infantry in Line Formation.

Dismounted Leaders move as Infantry in Column Formation.

Mounted Leaders move as Mounted Cavalry.

Formation/Facing Change Costs:

	Change of Formation	Change of Facing	About Face
Infantry:	4	2	2
Cavalry:	6	3	2
Artillery:	6	2	2

Rearward Movement Penalty: +1

Ammunition Loss Values:

Each time an Infantry or Cavalry unit ranged fires there is a chance its ammo supply status to change. The first supply status loss is called "Low on Ammo" and the second supply status loss is called "Out of Ammo."

Small Arms Loss Probability: 1/24 (4%)

Each time and Artillery unit is captured the former owner's Artillery Ammo

Level is reduced by the number of guns captured times three.

Weapon Effectiveness Table:

Range	Weapon										
	B	C	H	M	N	P	R	S	T	W	
1	8	8	12	6	12	1	4	12	9	0	
2	4	3	6	1	6	0	2	8	6	0	
3	2	1	3	0	3	0	1	3	3	1	
4	1	0	1	0	2	0	1	2	2	1	
5	0	0	1	0	2	0	1	1	2	1	
6-8	0	0	1	0	2	0	0	0	2	1	
9	0	0	1	0	1	0	0	0	2	1	
10-12	0	0	1	0	1	0	0	0	2	1	
13-15	0	0	1	0	1	0	0	0	1	1	
16-20	0	0	1	0	0	0	0	0	1	1	
21-70	0	0	0	0	0	0	0	0	0	1	

is the multiplier of weapon type firing.

0 means the weapon has no effectiveness at that range.

Weapon Types:

- B: Breech-loading rifles.
- C: Carbines.
- H: 12-pounder howitzers.
- M: Smoothbore muskets.
- N: 12-pounder Napoleon cannons.
- P: Pistols.
- R: Rifled muskets.
- S: Spencer repeating rifles.
- T: Rifled cannons.
- W: 12-pounder Whitworth cannons.

Fire Results Table

Factors:Roll	1	2	3	4	5	6	7	8	9	10	11	12
1-3	0	0	0	0	0	0	0	0	F	F	F	1
4-6	0	0	0	0	0	0	0	F	F	F	1	1
7-9	0	0	0	0	0	0	F	F	F	1	1	1
10-12	0	0	0	0	0	F	F	F	1	1	1	1
13-15	0	0	0	0	F	F	F	1	1	1	1	1
16-18	0	0	0	F	F	F	1	1	1	1	1	1
19-24	0	0	F	F	F	1	1	1	1	1	1	1
25-30	0	F	F	F	1	1	1	1	1	1	1	1
31-36	F	F	F	1	1	1	1	1	1	1	1	2
37-42	F	F	1	1	1	1	1	1	1	1	2	2
43-48	F	1	1	1	1	1	1	1	1	2	2	2
49-54	1	1	1	1	1	1	1	1	2	2	2	2
55-60	1	1	1	1	1	1	1	2	2	2	2	2
61-66	1	1	1	1	1	1	2	2	2	2	2	2
67-72	1	1	1	1	1	2	2	2	2	2	2	3

73-78	1	1	1	1	2	2	2	2	2	2	3	3	
79-84	1	1	1	2	2	2	2	2	2	3	3	4	
85-90	1	1	2	2	2	2	2	2	3	3	4	4	
91-96	1	2	2	2	2	2	2	3	3	4	4	5	
97-102		2	2	2	2	2	2	3	3	4	4	5	5

= "#": Amount of Strength loss (casualties) inflicted on defender.
 F = Defender's Fatigue increased by one

Fire Results Die Roll Modifiers

- Enfiladed modifier: +2
- Attack vs. Mounted cavalry modifier: +4
- Attack vs Routed Unit modifier: +2

Hexside Modifiers:

- Breastwork: -1
- Rail Cut: +4 (If firing across into adjacent lower-level hex)
- Stone Wall: -2
- Up Elevation: -1

Terrain Modifiers:

- Forest: -1
- Rough: -2
- Town: -1

Melee Table

Diff:Def/Att	1	2	3	4	5	6
-4	1/-1	0/-1	0/-1	0/-1	0/-2	0/-3
-3	1/-1	1/-1	0/-1	0/-1	0/-1	0/-2
-2	-1/1	1/-1	1/-1	0/-1	0/-1	0/-1
-1	-1/1	-1/1	1/-1	1/-1	0/-1	0/-1
0	-1/1	-1/1	-1/1	1/-1	1/-1	0/-1
1	-1/1	-1/1	-1/1	-1/1	1/-1	1/-1
2	-1/0	-1/1	-1/1	-1/1	-1/1	1/-1
3	-1/0	-1/0	-1/1	-1/1	-1/1	-1/1
4	-2/0	-1/0	-1/0	-1/1	-1/1	-1/1
5	-2/0	-2/0	-1/0	-1/0	-1/1	-1/1
6	-3/0	-2/0	-2/0	-1/0	-1/0	-1/1

Absolute value is strength loss
 Negative result indicates losing side

Melee Strength Modifiers

- If no attacking unit fired in the preceding Offensive Fire Phase: +1 to attacking side's strength.
- If any attacking unit is suffering from Low or High Fatigue: -1 or -2 to attacking side's strength respectively.
- If any attacker advanced across a wall or breastwork hexside: -x (for that terrain modifier) to attacking side's strength.
- If any attacker advanced uphill: -x (for the greatest number of levels ascended)

to attacking side's strength.
Disrupted/Routed defender: strength of each such unit is halved.
Friendly leader in hex: +1 to that side's strength.

Leader Casualty Values

The chance for Leader Casualty is the fire or melee value over the base value.

Leader Casualty Base Value:

Mounted: 50

Dismounted: 100

Fire Wound Value: 2

Fire Kill Value: 3

Melee Wound Value: 3

Melee Kill Value: 4

Melee Capture Value: 5

Elevation Information

Terrain Elevations (feet):

Rough: 10 Clear: 0 Forest: 50

Orchard: 15 Marsh: 0 Breastwork: 0

Wall: 0 Town: 30 Elevation Level: 30

11.0 Order of Battle

Army of the Potomac

Maj. Gen. George G. Meade

I Corps

Maj. Gen. John F. Reynolds

1st Division (Wadsworth)

Brig. Gen. James S. Wadsworth

1st "Iron" (Meredith)

Brig. Gen. Solomon Meredith

19th Indiana
24th Michigan
2nd Wisconsin
6th Wisconsin
7th Wisconsin

2nd Brigade (Cutler)

Brig. Gen. Lysander Cutler

7th Indiana
76th New York
84th NY (14th Militia)
95th New York
147th New York
56th Pennsylvania

2nd Division (Robinson)

Brig. Gen. J. C. Robinson

1st Brigade (Paul)

Brig. Gen. Gabriel Paul

16th Maine
13th Massachusetts
94th New York
104th New York
107th Pennsylvania

2nd Brigade (Baxter)

Brig. Gen. Henry Baxter

12th Massachusetts
83rd NY (9th Militia)
97th New York
11th Pennsylvania
88th Pennsylvania
90th Pennsylvania

3rd Division (Doubleday)

Maj. Gen. Abner Doubleday

1st Brigade (Rowley)

Brig. Gen. Thomas Rowley

80th NY "Ulster Grd"
121st Pennsylvania
142nd Pennsylvania
151st Pennsylvania

2nd "Pa Bucktail"

Col. Roy Stone

143rd Pennsylvania
149th Pennsylvania
150th Pennsylvania

3rd "Paper Collar"

Brig. Gen. George Stannard

12th Vermont
13th Vermont
14th Vermont
15th Vermont
16th Vermont

Artillery Brigade

2nd Btty (B) Maine Lt
5th Btty (E) Maine Lt
Btty E & L, 1st NY
1st Pa Lt
Btty B, 4th U.S.

II Corps

Maj. Gen. Winfield Scott Hancock

1st Division (Caldwell)

Brig. Gen. John Caldwell

1st Brigade (Cross)

Col. Edward Cross

5th New Hampshire
61st New York
81st Pennsylvania
148th Pennsylvania

2nd "Irish" (Kelly)

Col. Patrick Kelly

28th Massachusetts
63rd, 69th, 88th NY
116th Pennsylvania

3rd Brigade (Zook)

Brig. Gen. Samuel Zook

52nd New York
57th New York
140th Pennsylvania
66th New York

4th Brigade (Brooke)

Col. John Brooke

25th Connecticut
2nd Delaware
64th New York
145th Pennsylvania
53rd Pennsylvania

2nd Division (Gibbon)

Brig. Gen. John Gibbon

1st Brigade (Harrow)

Brig. Gen. William Harrow

19th Maine

15th Massachusetts
1st Minnesota
82nd NY (2nd Militia)

2nd "Phil" (Webb)
Brig. Gen. Alexander Webb

69th Pennsylvania
71st Pennsylvania
72nd Pennsylvania
106th Pennsylvania

3rd Brigade (Hall)
Col. Norman Hall

19th Massachusetts
20th Massachusetts
7th Michigan
42nd NY "Tammany"
59th New York

3rd Division (Hays)
Brig. Gen. Alexander Hays

1st Brigade (Carroll)
Col. Samuel S. Carroll

14th Indiana
4th Ohio
8th Ohio
7th W Virginia

2nd Brigade (Smyth)
Col. Thomas Smyth

14th Connecticut
1st Delaware
12th New Jersey
108th New York

3rd Brigade (Willard)
Col. George Willard

39th NY (Garibaldi)
111th New York
125th New York
126th New York

Artillery Brigade

Btty B, 1st/14th NY Lt
Btty A, 1st Rhode Island
Btty B, 1st Rhode Island
Btty I, 1st U.S.
Btty A, 4th U.S.

III Corps

Maj. Gen. Daniel Sickles

1st Division (Birney)

Maj. Gen. David B. Birney

1st Brigade (Graham)

Brig. Gen. Charles Graham

57th Pennsylvania
63rd Pennsylvania
68th Pennsylvania
105th Pennsylvania
114th Pennsylvania
141st Pennsylvania

2nd Brigade (Ward)

Brig. Gen. J. H. Ward

20th Indiana
3rd Maine
4th Maine
86th New York
124th New York
99th Pennsylvania
1st US Sharpshooters
2nd US Sharpshooters

3rd (de Trobriand)

Col. P. R. de Trobriand

17th Maine
3rd Michigan
5th Michigan
40th NY "Mozart"
110th Pennsylvania

2nd Divison (Humphreys)

Brig. Gen. Andrew A. Humphreys

1st Brigade (Carr)

Brig. Gen. Joseph Carr

1st Massachusetts
11th Massachusetts
16th Massachusetts
12th New Hampshire
11th New Jersey
26th Pennsylvania
84th Pennsylvania

2nd Brig (Brewster)

Col. William Brewster

70th New York
71st New York
72nd New York
73rd New York
74th New York
120th New York

3rd Brigade (Burling)

Col. George Burling

2nd New Hampshire
5th New Jersey
6th New Jersey
7th New Jersey
8th New Jersey
115th Pennsylvania

Artillery Brigade

4th New York
Btty D, 1st New York
Btty B, 2nd New Jersey
Btty E, 1st Rhode Island
Btty K, 4th U.S.

V Corps

Maj. Gen. George Sykes

1st Divison (Barnes)

Brig. Gen. James Barnes

1st Brigade (Tilton)

Col. William Tilton

18th Massachusetts
22nd Massachusetts
1st Michigan
118th Pennsylvania

2nd Brig (Sweitzer)

Col. Jacob Sweitzer

9th Massachusetts
32nd Massachusetts
4th Michigan
62nd Pennsylvania

3rd Brigade (Vincent)

Col. Strong Vincent

20th Maine
16th Michigan
44th New York
83rd Pennsylvania

2nd Divison (Ayres)

Brig. Gen. Romeyn B. Ayres

1st Brigade (Day)

Col. Hannibal Day

3rd U.S.
4th U.S.
6th U.S.
12th U.S.
14th U.S.

2nd Brigade (Burbank)

Col. Sidney Burbank

2nd U.S.
7th U.S.

10th U.S.
11th U.S.
17th U.S.

3rd Brigade (Weed)
Brig. Gen. Stephen Weed

140th New York
146th New York
91st Pennsylvania
155th Pennsylvania

3rd Division (Crawford)
Brig. Gen. Samuel Crawford

1st Brig (McCandless)
Col. William McCandless

1st Pa Res (30th Pa)
2nd Pa Res (31st Pa)
6th Pa Res (35th Pa)
13th Pa Res "Bucktails"

3rd Brigade (Fisher)
Col. Joseph Fisher

5th Pa Res (34th Pa)
9th Pa Res (38th Pa)
10th Pa Res (39th Pa)
11th Pa Res (40th Pa)
12th Pa Res (41st Pa)

Artillery Brigade

3rd Btty (C), Mass Lt
Btty C, 1st NY Lt
Btty L, 1st Ohio Lt
Btty D, 5th U.S.
Btty I, 5th U.S.

VI Corps
Maj. Gen. John Sedgwick

1st Divison (Wright)

Brig. Gen. Horatio Wright

1st Brigade (Torbert)

Brig. Gen. Alfred Torbert

1st New Jersey
2nd New Jersey
3rd New Jersey
15th New Jersey

2nd Brig (Bartlett)

Brig. Gen. Joseph Bartlett

5th Maine
121st New York
95th Pennsylvania
96th Pennsylvania

3rd Brigade (Russell)

Brig. Gen. David Russell

6th Maine
49th Pennsylvania
119th Pennsylvania
5th Wisconsin

2nd Divison (Howe)

Brig. Gen. Albion Howe

2nd Brigade (Grant)

Col. Lewis Grant

2nd Vermont
3rd Vermont
4th Vermont
5th Vermont
6th Vermont

3rd Brigade (Neill)

Brig. Gen. Thomas Neill

7th Maine
33rd New York
43rd New York
49th New York

77th New York
61st Pennsylvania

3rd Division (Newton)

Maj. Gen. John Newton

1st Brigade (Shaler)

Brig. Gen. Alexander Shaler

65th New York
67th New York
122nd New York
23rd Pennsylvania
82nd Pennsylvania

2nd Brigade (Eustis)

Col. Henry Eustis

7th Massachusetts
10th Massachusetts
37th Massachusetts
2nd Rhode Island

3rd Brigade (Wheaton)

Brig. Gen. Frank Wheaton

62nd New York
93rd Pennsylvania
98th Pennsylvania
102nd Pennsylvania
139th Pennsylvania

Artillery Brigade

1st Btty (A), Mass Lt
1st Btty, New York Lt
3rd Btty, New York Lt
Btty C, 1st Rhode Island
Btty G, 1st Rhode Island
Btty D, 2nd US
Btty G, 2nd US
Btty F, 5th US

XI Corps

Maj. Gen. Oliver O. Howard

1st Division (Barlow)

Brig. Gen. Francis Barlow

1st Brig (von Gilsa)

Col. Leopold von Gilsa

41st New York
54th New York
68th New York
153rd Pennsylvania

2nd Brigade (Ames)

Brig. Gen. Adelbert Ames

17th Connecticut
25th Ohio
75th Ohio
107th Ohio

2nd Division (Steinwehr)

Brig. Gen. Adolph von Steinwehr

1st Brigade (Coster)

Col. Charles Coster

134th New York
154th New York
27th Pennsylvania
73rd Pennsylvania

2nd Brigade (Smith)

Col. Orland Smith

33rd Massachusetts
136th New York
55th Ohio
73rd Ohio

3rd Division (Schurz)

Maj. Gen. Carl Schurz

1st (Schimmelfennig)

Brig. Gen. Schimmelfennig

82nd Illinois
45th New York
157th New York
61st New York
74th Pennsylvania

2nd (Krzyzanowski)
Col. Wladimir Krzyzanowski

58th New York
119th New York
82nd Ohio
75th Pennsylvania
26th Wisconsin

Artillery Brigade

Btty I, 1st New York Lt
13th Btty, New York Lt
Btty I, 1st Ohio Lt
Btty K, 1st Ohio Lt
Btty G, 4th U.S.

XII Corps

Maj. Gen. Henry W. Slocum

1st Division (Williams)

Brig. Gen. Alpheus S. Williams

1st Brig (McDougall)

Col. Archibald McDougall

5th Connecticut
20th Connecticut
3rd Maryland
123rd New York
145th New York
46th Pennsylvania

2nd Brig (Lockwood)
Brig. Gen. Henry Lockwood

1st Md (Potomac Home)

1st Md (Eastern Shore)
150th New York

3rd Brigade (Rugar)
Brig. Gen. Thomas Rugar

27th Indiana
2nd Massachusetts
13th New Jersey
107th New York
3rd Wisconsin

2nd Division (Geary)
Brig. Gen. John W. Geary

1st Brigade (Candy)
Col. Charles Candy

5th Ohio
7th Ohio
29th Ohio
66th Ohio
28th Pennsylvania
147th Pennsylvania

2nd Brigade (Cobham)
Col. George Cobham, Jr.

29th Pennsylvania
109th Pennsylvania
11th Pennsylvania

3rd Brigade (Greene)
Brig. Gen. George Greene

60th New York
78th New York
102nd New York
137th New York
149th New York

Artillery Brigade

Btty M, 1st NY Lt
Btty E, Penn Lt
Btty F, 4th U.S.

Btty K, 5th U.S.

Cavalry Corps

Maj. Gen. Alfred Pleasonton

1st Division (Buford)

Brig. Gen. John Buford

1st Brigade (Gamble)

Col. William Gamble

8th Illinois
12th Illinois
3rd Indiana
8th New York

2nd Brigade (Devin)

Col. Thomas Devin

6th New York
9th New York
17th Pennsylvania
3rd W. Virginia

Reserve Brig (Merritt)

Brig. Gen. Wesley Merritt

6th Pennsylvania
1st US
2nd US
5th US
6th US

2nd Division (Gregg)

Brig. Gen. David Gregg

1st Brig (McIntosh)

Col. John B. McIntosh

1st Maryland
1st Massachusetts
1st New Jersey
1st Pennsylvania
3rd Pennsylvania

Btty H, 3rd Penn

2nd Brigade (Huey)

Col. Penn Huey

2nd New York
4th New York
6th Ohio
8th Pennsylvania

3rd Brigade (Gregg)

Col. J. Irvin Gregg

1st Maine
10th New York
4th Pennsylvania
16th Pennsylvania

3rd Division (Kilpatrick)

Brig. Gen. Judson Kilpatrick

1st Brig (Farnsworth)

Brig. Gen. Elon Farnsworth

5th New York
18th Pennsylvania
1st Vermont
1st W. Virginia

2nd Brigade (Custer)

Brig. Gen. George Custer

1st Michigan
5th Michigan
6th Michigan
7th Michigan

Horse Artillery

1st Brigade

9th Michigan Btty
6th New York Btty
Btty B & L, 2nd U.S.
Btty M, 2nd U.S.

Btty E, 4th U.S.

2nd Brigade

Btty E & G, 1st U.S.
Btty K, 1st U.S.
Btty A, 2nd U.S.
Btty C, 3rd U.S.

Artillery Reserve

1st Regular Brigade

Btty H, 1st U.S.
Btty F & K, 3rd U.S.
Btty C, 4th U.S.
Btty C, 5th U.S.

1st Volunteer Brigade

5th Btty (E), Mass Lt
9th Btty, Mass Lt
15th Btty, New York Lt
Btty C & F, Pa Lt

2nd Volunteer Brigade

Btty B, 1st Conn Hvy
Btty M, 1st Conn Hvy
2nd Btty, Conn Lt
5th Btty, New York Lt

3rd Volunteer Brigade

1st Btty, NH Lt
Btty H, 1st Ohio Lt
Btty F & G, 1st Pa Lt
Btty C, W Virginia Lt

4th Volunteer Brigade

6th Btty (F), Maine Lt
Btty A, Maryland Lt
1st Btty, New Jersey Lt
Btty G, 1st New York Lt

Btty K, 1st New York Lt

Army of Northern Virginia

Gen. Robert E. Lee

I Corps

Lt. Gen. James Longstreet

McLaws Division

Maj. Gen. Lafayette McLaws

Kershaw's Brigade

Brig. Gen. Jos. B. Kershaw

2nd SC "Palmetto"
3rd S Carolina
7th S Carolina
8th S Carolina
15th S Carolina
3rd SC Bn "James"

Semmes' Brigade

Brig. Gen. Paul J. Semmes

10th Georgia
50th Georgia
51st Georgia
53rd Georgia

Barksdale's Brigade

Brig. Gen. William Barksdale

13th Mississippi
17th Mississippi
18th Mississippi
21st Mississippi

Wofford's Brigade

Brig. Gen. William T. Wofford

16th Georgia
18th Georgia
24th Georgia

Cobb's Ga Legion
Phillip's Ga Legion

Cabell's Battalion

Btty A, 1st N Carolina
Pulaski Georgia
1st Richmond Howitzers
Troup (Georgia)

Pickett's Division

Maj. Gen. George E. Pickett

Garnett's Brigade

Brig. Gen. Richard B. Garnett

8th Virginia
18th Virginia
19th Virginia
28th Virginia
56th Virginia

Kemper's Brigade

Brig. Gen. James L. Kemper

1st Va "Williams' Rfls"
3rd Virginia
7th Virginia
11th Virginia
24th Virginia

Armistead's Brigade

Brig. Gen. Lewis A. Armistead

9th Virginia
14th Virginia
38th Virginia
53rd Virginia
57th Virginia

Dearing's Battalion

Fauquier Virginia
Hampden Virginia
Richmond Fayette
Lynchburg Virginia

Hood's Division

Maj. Gen. John B. Hood

Law's Brigade

Brig. Gen. Evander M. Law

4th Alabama
15th Alabama
44th Alabama
47th Alabama
48th Alabama

Robertson's Brigade

Brig. Gen. Jerome B. Robertson

3rd Arkansas
1st Texas
4th Texas
5th Texas

Anderson's Brigade

Brig. Gen. George Anderson

7th Georgia
8th Georgia
9th Georgia
11th Georgia
59th Georgia

Benning's Brigade

Brig. Gen. Henry Benning

2nd Georgia
15th Georgia
17th Georgia
20th Georgia

Henry's Battalion

Branch's N Carolina
German S Carolina
Palmetto S Carolina
Rowan N Carolina

Artillery Reserve

Alexander's Battalion

Ashland Virginia
Bedford Virginia
Brooks S Carolina
Madison Louisiana Lt
Parker's Virginia
Taylor's Virginia

Washington La Art

1st Company
2nd Company
3rd Company
4th Company

II Corps

Lt. Gen. Richard S. Ewell

Early's Division

Maj. Gen. Jubal A. Early

Hays' Brigade

Brig. Gen. Harry T. Hays

5th Louisiana
6th Louisiana
7th Louisiana
8th Louisiana
9th Louisiana

Smith's Brigade

Brig. Gen. William Smith

31st Virginia
49th Virginia
52nd Virginia

Hoke's Brigade

Col. Isaac Avery

6th N Carolina
21st N Carolina

57th N Carolina

Gordon's Brigade
Brig. Gen. John B. Gordon

13th Georgia
26th Georgia
31st Georgia
38th Georgia
60th Georgia
61st Georgia

Jones' Battalion

Charlottesville Va
Courtney Virginia
Louisiana Guard
Staunton Virginia

Johnson's Division
Maj. Gen. Edward Johnson

Steuart's Brigade
Brig. Gen. Geo. H. Steuart

1st Maryland Bn
1st N Carolina
3rd N Carolina
10th Virginia
23rd Virginia
37th Virginia

Stonewall Brigade
Brig. Gen. James Walker

2nd Virginia
4th Virginia
5th Virginia
27th Virginia
33rd Virginia

Nicholls' "La Tigers"
Col. J. M. Williams

1st Louisiana
2nd Louisiana
10th Louisiana

14th Louisiana
15th Louisiana

Jones' Brigade

Brig. Gen. John Jones

21st Virginia
25th Virginia
42nd Virginia
44th Virginia
48th Virginia
50th Virginia

Latimer's Battalion

1st Maryland Btty
Allegheny Virginia
Chesapeake Maryland
Lee Virginia Btty

Rodes' Division

Maj. Gen. Robert E. Rodes

Daniel's Brigade

Brig. Gen. Junius Daniel

32nd N Carolina
43rd N Carolina
45th N Carolina
53rd N Carolina
2nd N Carolina Bn

Iverson's Brigade

Brig. Gen. Alfred Iverson

5th N Carolina
12th N Carolina
20th N Carolina
23rd N Carolina

Doles' Brigade

Brig. Gen. George Doles

4th Georgia
12th Georgia
21st Georgia
44th Georgia

Ramseur's Brigade
Brig. Gen. Stephen Ramseur

2nd N Carolina
4th N Carolina
14th N Carolina
30th N Carolina

O'Neal's Brigade
Col. Edward A. O'Neal

3rd Alabama
5th Alabama
6th Alabama
12th Alabama
26th Alabama

Carter's Battalion

Jeff Davis Alabama
King William Va
Morris Virginia
Orange Virginia

Artillery Reserve

1st Vir Art (Dance)

2nd Richmond Howitzers
3rd Richmond Howitzers
Powhatan Virginia
Rockbridge Virginia
Salem Virginia

Nelson's Battalion

Amherst Virginia
Fluvanna Virginia
Georgia Btty

III Corps

Lt. Gen. Ambrose P. Hill

Anderson's Division

Maj. Gen. R. H. Anderson

Wilcox's Brigade

Brig. Gen. Cadmus Wilcox

8th Alabama
9th Alabama
10th Alabama
11th Alabama
14th Alabama

Wright's Brigade

Brig. Gen. A. R. Wright

3rd Georgia
22nd Georgia
48th Georgia
2nd Georgia Bn

Mahone's Brigade

Brig. Gen. William Mahone

6th Virginia
12th Virginia
16th Virginia
41st Virginia
61st Virginia

Perry's "Florida"

Col. David Lang

2nd Florida
5th Florida
8th Florida

Posey's Brigade

Brig. Gen. Carnot Posey

12th Mississippi
16th Mississippi
19th Mississippi
48th Mississippi

Sumter Bn (Lane)

Company A
Company B
Company C

Heth's Division

Maj. Gen. Henry Heth

1st Brig (Pettigrew)

Brig. Gen. J. J. Pettigrew

11th N Carolina
26th N Carolina
47th N Carolina
52nd N Carolina

2nd (Brockenbrough)

Col. J. M. Brockenbrough

40th Virginia
47th Virginia
55th Virginia
22nd Virginia Bn

3rd Brigade (Archer)

Brig. Gen. James Archer

13th Alabama
5th Alabama
1st Tennessee
7th Tennessee
14th Tennessee

4th Brigade (Davis)

Brig. Gen. Joseph Davis

2nd Mississippi
11th Mississippi
42nd Mississippi
55th N Carolina

Garnett's Battalion

Donaldsonville La
Huger Virginia
Lewis Virginia
Norfolk Lt Blues

Pender's Division

Maj. Gen. William D. Pender

1st Brigade (Perrin)

Col. Abner Perrin

1st S Carolina
1st SC Rifles
12th S Carolina
13th S Carolina
14th S Carolina

2nd Brigade (Lane)

Brig. Gen. James Lane

7th N Carolina
18th N Carolina
28th N Carolina
33rd N Carolina
37th N Carolina

3rd Brigade (Thomas)

Brig. Gen. Edward Thomas

14th Georgia
35th Georgia
45th Georgia
49th Georgia

4th Brigade (Scales)

Brig. Gen. Alfred M. Scales

13th N Carolina
16th N Carolina
22nd N Carolina
34th N Carolina
38th N Carolina

Poague's Battalion

Albemarle Virginia
Charlotte N Carolina
Madison Miss Lt
Warrenton Va Btty

Artillery Reserve

McIntosh's Battalion

Danville Virginia
Hardaway Alabama (A)
Hardaway Alabama (B)
2nd Rockbridge Va
Richmond Va Btty

Pegram's Battalion

Crenshaw Va Btty
Fredericksburg Btty
Letcher Va Btty
Pee Dee S Carolina
Purcell Virginia

Stuart's Division

Maj. Gen. J.E.B. Stuart

Hampton's Brigade Brig. Gen. Wade Hampton

1st N Carolina
1st S Carolina
2nd S Carolina
Cobb's Ga Legion
Jeff Davis Legion
Phillips Ga Legion

Fitz Lee's Brigade Brig. Gen. Fitzhugh Lee

1st Maryland Bn
1st Virginia
2nd Virginia
3rd Virginia
4th Virginia
5th Virginia

Robertson's Brigade Brig. Gen. Beverly Robertson

4th N Carolina

5th N Carolina

Jenkin's Brigade
Brig. Gen. Albert J. Jenkins

14th Virginia
16th Virginia
17th Virginia
34th Virginia Bn
36th Virginia Bn
Jackson's Va Btty

Jones' Brigade
Brig. Gen. William Jones

6th Virginia
7th Virginia
11th Virginia
35th Virginia Bn

W.H.F. Lee's Brigade
Col. John R. Chambliss, Jr.

2nd N Carolina
9th Virginia
10th Virginia
13th Virginia

Stuart Horse Art (Beckham)

Breathed's Va Btty
Chew's Va Btty
Griffin's Md Btty
Hart's SC Btty
McGregor's Va Btty

Imboden's Command
Brig. Gen. J. D. Imboden

18th Virginia Cavalry
62nd Va Inf (mounted)
Virginia Partisan Rangers
McClanahan's Va Btty

