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# 1.0 Overview

#### Prelude to Another Bull Run

It was summer, 1862. The war had been going on for more than a year. Its largest battle had been fought just months before at Shiloh, in Tennessee. General Robert E. Lee was the newly appointed commander of the Army of Northern Virginia, and had inaugurated his appointment with a successful campaign - the Seven Days Battle - against Gen. George McClellan down the James Peninsula in Virginia. After his success, Lee's men stopped calling him "Granny Lee" and began using a new nickname, "Marse Robert", which he would keep for the rest of the war. Lee's success stemmed from the fact that he had understood well the over-cautiousness of Gen. McClellan.

President Lincoln had seen this too, and decided he needed a new leader. McClellan was left to sit at Harrison's Landing while General John Pope was brought from the west to take command of the forces around Washington. With much bluster and fanfare, Pope took over the combined forces of Irvin McDowell, Ambrose Burnside, and elements of McClellan's army returning from the James Peninsula

Pope stepped into the position with little support, and was never accepted by his men, due in part to his pomposity and because many in the officer corps retained an intense loyalty to the now-deposed McClellan. McDowell, Pope's second in command, was also disliked due to his failure at the First Battle of Bull Run (Manassas). Even so, Pope decided to attack Richmond by the most direct route possible. In this, President Lincoln encouraged and supported him.

With McClellan now impotent on the Peninsula, Lee decided to face Pope. He gathered in most of his army and marched north between Richmond and Washington, where he found Pope at the Rappahannock River near Rappahannock Station. The opposing forces faced each other across the river, each waiting for the other to move. Lee and his commanders quickly recognized Pope's overconfidence when the latter left his supply lines and depots between Washington and Rappahannock Station weakly defended. Lee decided that Generals "Stonewall" Jackson and J.E.B. Stuart could take advantage of this mistake. While Longstreet's Corps held Pope's attention at the Rappahannock, Jackson and Stuart quickly marched north, northeast, then south, undetected, around Pope's army until they reached Bristoe Station and Manassas Junction, where they derailed several locomotives and "liberated" a vast amount of Federal army stores.

The word that Confederates were in his rear soon reached Gen. Pope, causing him to recognize his tenuous position. He turned his army and retreated it back up its supply line to find and attack the isolated Jackson. Aware of Pope's maneuvers, Jackson withdrew northward from Manassas Junction and established a defensive position not far from the site of the previous year's Battle of Bull Run. Capturing a few misinformed rebel stragglers at Manassas Junction, Pope was given information that led him to believe Jackson's troops had headed *northeast* toward Centreville after leaving the ransacked junction. He therefore issued orders to all of his divisions to immediately converge on that town. Pope had only one thing in mind, and that was to "bag" Jackson.

# Scuffle at Brawner's Farm 28 August, 1862

After departing Manassas Junction, Jackson's footsore (but belly-full!) soldiers had taken refuge in the shade trees north of the turnpike near Groveton, lying in wait for some unsuspecting victim. As Union Gen. Rufus King's division came unsuspectingly marching down the Warrenton Turnpike approaching Groveton, it attracted the attention of a lone horseman on a nearby hilltop - "Stonewall" Jackson.

The first shots of the battle are credited to Balthis' battery of Ewell's divisional artillery when it opened fire on King's column snaking its way eastward along the turnpike. The Federal column quickly dispersed, with Gibbon's and Doubleday's brigades taking cover in Groveton woods. At this point John Gibbon was thinking they had been fired on by a lone detachment of Confederate horse artillery, which could be easily driven off by some infantry. To that end he dispatched his only veteran regiment, the 7th Wisconsin. The advancing Wisconsin men were soon awestruck, however, by the sight of Confederates "by thousands", in neat lines of battle with flags waving briskly, emerging from the woods to their north.

These were the men of Jackson's vaunted "Stonewall" brigade, now led by William Baylor. Expecting to sweep the Federals before him, the Confederates instead met stiff resistance from Gibbon's "westerners" from Wisconsin and Indiana - later to be known as the Iron Brigade - in their tall black hats. Soon Jackson was forced to up the ante by committing several more brigades to deal with the surprisingly stubborn Unionists. With the aid of two regiments from Abner Doubleday's brigade, Gibbon's men stood toe to toe with the battle-tested Rebels for more than two hours in the gathering dusk. Once darkness mercifully ended the carnage, Gibbon, with the rest of the now-bloodied division, withdrew southward to the safety of the Union camps at Manassas Junction - but bearing precious information on the whereabouts of the elusive Jackson.

Pope was ecstatic that Jackson had finally been located. In the Union commander's eyes, he only needed to get his widely scattered forces to Groveton and the Brawner's farm area quickly, and he would cut off -and could then destroy - the notorious Confederate general's forces. A glorious victory seemed at hand.

What Pope did not know was that "Stonewall" Jackson had no intention of running, and in fact had been waiting to be found...

#### The Second Battle of Bull Run 29-30 August, 1862

The next day, as Pope's forces converged on Groveton, Jackson's troops remained in their positions along the unfinished railroad, which was in effect a series of natural trenches and raised embankments ideal for defense. Despite facing what might soon be the entire Union army, Jackson was not worried because he knew Longstreet's corps was approaching from Gainesville to the west. With the two corps thusly combined, Lee, who was accompanying Longstreet, hoped to deliver a blow to Pope that would drive him back to Washington.

Jackson's dispositions along the unfinished railroad ran southwest to northeast, north of and roughly parallel to the Warrenton Pike and just south of Sudley Springs, where the previous year McDowell's men had crossed Bull Run in their flanking attack. Arriving on the field shortly after noon, Pope established his headquarters on Buck Hill, near the intersection of the Warrenton Turnpike and the Sudley-Manassas Road.

Pope's optimism was high. He had reports stating that Porter's strong V Corps, newly arrived from McClellan's Army of The Potomac, was approaching from the southwest and would soon be in Gainesville, cutting off Jackson's retreat. Confident that the wily Jackson was now trapped, he sent his forces headlong into the fight. The last thing he wanted was for the Rebels to disengage before Porter was in their rear. Wave after wave of Federal troops made uncoordinated attacks on various points of Jackson's line. The Rebels fought back tenaciously. The Yankee attacks were especially heavy on the Confederate left, where Maxcy Gregg's brigade was engaged almost continuously; their ammunition was soon nearly exhausted. The Rebel line bent, but did not break.

Unbeknownst to Pope, Gen. Lee, with Longstreet's fresh divisions, had arrived on the field before noon and set themselves on Jackson's right, flanking Pope's line. Pope was warned of this by Porter, whose men ran into and were halted by vanguard units of Longstreet's corps on the Manassas-Gainesville Road. Pope discounted the suggestion that Longstreet could be there, so unexpectedly close to the battle.

Lee encouraged Longstreet to attack immediately in support of Jackson. But Longstreet hesitated, insisting it would be better to wait until all of Pope's reserves were committed. Finally, around sunset, Longstreet authorized Hood's division, supported by several other brigades, to conduct a "reconnaissance-in-force" to establish the Union presence to their front. Reynolds' division of Pennsylvania Reserves quickly gave way, allowing the advancing Rebels to pass through Groveton and beyond. The fighting persisted well beyond dusk, as men shot confusedly at gun flashes in the moonlight. Under cover of darkness, Hood's Confederates withdrew to their start line. Amazingly, Pope was still unconvinced that Longstreet had arrived.

With Porter evidently unwilling or unable to advance from the southwest along the Manassas-Gainesville Road, Pope ordered him to break camp before sunrise on the 30th, backtrack, and approach the battlefield from the south along the Manassas-Sudley Road. As Porter duly obeyed these orders, the Union flanking threat to Longstreet's right was completely removed, freeing Longstreet's corps to carry out Lee's plan unhindered.

Shortly after 3am, R.H. Anderson's Confederate division arrived from the Gainesville area and in the darkness marched right through their own lines into "no man's land". Not realizing the danger, his men lay down there and quickly fell asleep. Their peaceful bivouac was interrupted, however, when Hood was informed of their presence and had them duly rousted. As the sun rose, Anderson's ranks were just withdrawing westward to safety along the Warrenton Turnpike. Their movement was not totally unobserved, however: Brig. Gen. Marsena Patrick witnessed the long line of gray-clads moving away along the Pike, and quickly sent word of the evident Rebel retreat to Pope.

Reports of a Confederate retreat were just the kind of news John Pope wanted to hear. Convinced that he had already achieved victory, and still unaware that Longstreet sat astride his open left flank, he made plans for the orderly pursuit of Jackson's "retreating" troops. It was to be one of the shortest pursuits in the history of warfare. Pope called on John Reynolds' division to lead the pursuit. Reynolds knew better, as the night before his men had tangled with a strong band of Rebels, and he considered the idea of a Confederate retreat preposterous. Pope would hear none of it, however, so Reynolds ordered his men to move out westward along the turnpike. Meanwhile, to the north Pope sent other contingents to scout the woods where the Rebels had been before.

The advancing Federals were surprised to find Jackson's troops still manning the railroad cut in force. Most surprised, however, was Pope himself, who spent the next few hours re-evaluating the "changed" situation. Reports kept filtering in of Rebels threatening his left, which he tried his best to discount. After Sigel confirmed Reynolds' reports, Pope finally dispatched McLean's brigade toward Chinn Ridge.

Finally, about 3pm, Porter's corps, supported by Hatch's division, launched a massive attack on Jackson's right near the area of the "Deep Cut", a portion of the unfinished railroad where the raised embankments abruptly ended and a stream ran through. During this furious assault Jackson did something he had not done before: he appealed to Lee for reinforcements. Lee asked Longstreet if he could oblige. Longstreet's answer came in the form of an attack. Having waiting quietly for so long, his men were ready. At 3:45pm, as the Federals reeled under the Confederate musketry and long-range fire from S.D. Lee's guns atop "Battery Heights", Longstreet unleashed his 30,000 fresh veterans on the wavering Union right.

The effects were immediate and devastating. Led by Hood's brigade of Texans, the Rebel onslaught was irresistible. McLean's Union brigade, aided by one of Reynolds' brigades, made a valiant but futile stand on Chinn Ridge. It did buy time, however, for the Federals to patch together a defensive line running north-south along the Manassas-Sudley Road. This line held long enough for Pope to realize that he was yet another victim of Confederate "generalship"; he ordered his defeated army eastward across the patched-together Stone Bridge to safety.

With the pressure on them relieved, Jackson's men joined in the attack, but not until about 5pm. And while the Union retreat was not the rout of the previous year's loss, the Federals had been forced once again to abandon the field. Lee lost 1481 men killed and 7627 wounded. Pope had 1724 killed, 8372 wounded and 5958 missing. Lee's army captured 30 artillery pieces and 20,000 small arms.

Pope's worn-out army trudged into Centreville, pitiful and wet from a dismal rain that had begun around 8pm. As one of his soldiers later wrote, Pope "had been kicked, cuffed, hustled about, knocked down, run over and trodden upon as rarely happens in the history of war. His communications had been cut; his headquarters pillaged; a corps had marched into his rear and had encamped at its ease upon the railroad by which he received his supplies; he had been beaten or foiled in every attempt he made to 'bag' those defiant intruders; and in the end he was glad to find a refuge in the entrenchments of Washington, from which he had sallied forth, six weeks before, breathing out threatenings and slaughter".

After a brief engagement at Chantilly, Pope and his defeated army fell back to Washington, DC, where he was soon to be ignominiously replaced by George McClellan. Meanwhile, Lee began planning his first advance into Maryland, which would eventually culminate in the single bloodiest day in American history - the Battle of Antietam.

# 2.0 Map Notes

The Battleground: Bull Run game maps were adapted from the "Troop Movement Maps" produced by the National Park Service (United States Department of the Interior) for both First-and Second-Manassas battles. These maps provide a wealth of information on the terrain as it was in the early 1860's, including location and types of fields, forested areas, as well as the names and sites of the various homesteads in the area.

Additional elevation details, as necessary, were taken from modern U. S. Geological Survey ("quadrangle") maps.

The current Manassas National Battlefield Park encompasses and preserves much, but not all, of the historical battlefields.

One thing that struck me as I walked the grounds of the Park is that today many parts of it are more wooded than they were in 1861 and 1862. For instance, the area between Brawner's farm and Schoolhouse Run is now almost entirely woods. In 1862, when Porter's corps assaulted "Stonewall" Jackson's men along the unfinished railroad, this area was mostly open, thus allowing S.D. Lee's battery (perched on what is today known as "Battery Heights") to fire mercilessly on the Federal ranks. Today the "line of sight" from Battery Heights is severely limited.

The "Stone House" still stands, much as it did in 1861, as does a rebuilt version of Henry House (now the site of the National Battlefield Park Visitors' Center). "Portici", headquarters to J.E. Johnston in 1861 and witness to a sharp cavalry clash in 1862, has disappeared, destroyed by fire a short time after the second battle. The famous "Stone Bridge", spanning Bull Run along the old Warrenton Turnpike, has also been restored and is a favorite tourist attraction.

However, perhaps the most intriguing area of the Park - and maybe the least visited - is the "Unfinished Railroad", a scene of savage fighting during the 1862 encounter. When construction was halted on this railroad in the late 1850's, no rails had yet been laid in the Manassas area, though many "cuts" and "embankments" had been constructed in preparation for the track. These features, sometimes as deep or as high as 10 feet, provided ideal defensive terrain for Jackson's veterans. In some locations (notably at what is now known as the "Deep Cut" and the "Dump") the raised embankments ended abruptly, leaving a large, sometimes marshy gap where a trestle, or continuation of the embankment, had been intended. These gaps in the natural defenses were all scenes of fierce fighting. If you visit the Manassas National Battlefield Park, I strongly encourage you to take along your hiking boots and check out this very interesting feature of American history.

# 3.0 Notes on the Forces

The strength of most of the Union and Confederate units is known fairly accurately, though that of a few regiments had to be estimated from known brigade strengths and deductive research.

By August of 1862 the rifled musket had become the predominant infantry weapon in both armies, though many regiments (and sometimes whole brigades) were still equipped with the less accurate smoothbore musket. This is especially true on the Confederate side, where access to newer and improved armaments was more restricted. While the smoothbore musket could not shoot nearly as far as its rifled equivalent, it was frequently deadlier at close range, especially when loaded with "buck and ball" which would give a blast similar to that of a shotgun.

As usual, the Confederate batteries were of mixed composition, containing in many instances more than one type of cannon. But instead of breaking each battery down into sections or individual cannons, an average weapon type has been assigned to each battery so that the overall composition comes out more or less historical.

# 4.0 Confederate Notes

When "The Second Battle of Bull Run" scenario opens at 9:40am, "Stonewall" Jackson's Confederates are spread out in a long line along the "Unfinished Railroad" stretching from Brawner's farm to across Bull Run Creek near the hamlet of Sudley. Roughly, from right (at Brawner's) to left (at Sudley), the three divisions of Jackson's "Left Wing" are Jackson's Division (led by Gen. Wm. E. Starke), Ewell's Division (led by Gen. A.R. Lawton) and A.P. Hill's "Light Division". The extreme left, across Bull Run Creek north of Sudley, is guarded by Fitz Lee's brigade of cavalry.

Jackson's men are not to be alone for long, however, as a steady stream of gray-clad reinforcements - Longstreet's "Right Wing", preceded and flanked by Robertson's cavalry brigade - begins arriving almost immediately.

Historically, Robert E. Lee kept this strong body of reinforcements mostly hidden from prying Federal eyes for much of the first day of the battle, letting Pope, the Federal commander, be content with repeated batterings of Jackson's strong defensive line along railroad grade. As long as Jackson's men could continue to maintain their tenuous grip on the railroad, Lee chose to keep his cards in his hand. In fact, it was not until late on the second day of the battle that Longstreet's fresh troops took the offensive, and then only after the Federals had spent themselves in the 3pm assault at the "Deep Cut".

As the Confederate commander in this scenario, you will have to decide when and how best to employ Longstreet's five divisions. Will the Union commander be as naive as John Pope was in August of 1862?

# 5.0 Union Notes

"The Second Battle of Bull Run" opens with Franz Sigel exercising tactical command of the Union forces on the field since John Pope, the Army commander, has yet to arrive. Throughout the morning, Sigel has been maneuvering his I Corps units into various positions in an attempt to better ascertain the strength and dispositions of the Confederate forces. The time is now 9:40am and the first of these probing attacks are set to begin.

Since Federal reinforcements will be arriving continuously from the east and south throughout the daylight hours of the 29th, it will be up to you, as the Union commander, to decide how best to employ them. Should you attempt a battle of attrition against Jackson's line along the "Unfinished Railroad", or perhaps mass your units and attempt a massive rupture of the Rebel ranks? Or should you instead marshall your forces in a strong defensive position in the hope that the Confederates will attack you?

Historically, John Pope was of the opinion that he was facing only Jackson's corps. His goal was to capture the infamous and supposedly isolated Jackson. Pope did not realize that he was actually facing Lee's entire Army of Northern Virginia - until the truth became painfully obvious. By then the battle was lost.

One thing in your favor as the Union commander is that you already know a lot more than John Pope was ever willing or able to comprehend - until it was too late for him and the Union cause.

# **6.0** Weapon Descriptions

#### **Code Description**

#### B Sharps .52-caliber Breechloading Rifle

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 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.

#### **K** 6-pounder Rifled Cannon

These guns were a rare commodity in the Confederate army during the early period of the war. Most were converted from smoothbores using the James system of 15 grooves. The 6-pounder rifled gun had the same muzzle velocity as the 6-pounder smoothbore, but because its projectile spun during flight it was more accurate and had a greater range.

#### L 6-pounder Smoothbore Cannon

The 6-pounder smoothbore was a muzzle-loading cannon with a bore diameter of 3.67 inches. Early battlefield experience demonstrated that it was a relatively ineffective piece beyond 1500 yards due to the projectile's rapid loss of velocity.

#### M Smoothbore Musket

Percussion muskets were widely used during the early part of the war. The 1842 Percussion Musket, also known as the Harper's Ferry Musket, was a .69-caliber smoothbore that fired a 1-ounce spherical ball. It weighed 9.2 pounds and was 57.75 inches in length. So desperate was the need for arms during the early months that many obsolete flintlock muskets were pressed back into service. This was especially true for the Confederates. Amongst these were the 1822 Flintlock Musket, a .69-caliber smoothbore that was converted to percussion in the 1840s and 1850s. It weighed 9.33 pounds and was 57.7 inches in length.

By the middle of the Civil War, the Smoothbore Musket would be replaced almost entirely by the rifled musket. Even though the smoothbore could be loaded faster, it was accurate only to about 100 yards.

#### 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 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*, and its soldiers used mostly captured Colts and Colt copies made in the South. In addition, it acquired several types of Europeans revolvers, the most popular being the Adams .49-caliber Dragoon, the Tranter .44 revolver, the Lefaucheux 11mm pinfire revolver, and the Le Mat. Almost all Confederate-made revolvers were

imitations of the .36-caliber Colt 1851 Navy, of which less then 12,000 were made.

#### R Rifle Musket

Although a great variety of small arms saw use during the war, the principal weapon on both sides was the .58-caliber 1861 Model Springfield Rifle Musket. This muzzle-loading 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.

The .577-caliber Enfield 1853-Pattern Rifle Musket was one of the best of the foreign arms. It weighed 8 pounds, 14.5 ounces, had a barrel 39 inches long, and was about 54 inches in overall length. Both sides supplemented their arsenals with the Enfield during the early months of the war. Some 428,000 were purchased by the U.S. Government, while the Confederacy received approximately 400,000.

#### T Rifled Cannon

The majority of rifled cannons in Civil War artillery batteries were 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.

#### V 20 and 30-pounder Rifled Cannons

The 20-pounder Parrott was a muzzle-loading gun made of cast iron, with a 3.64-inch bore. These large pieces were quite accurate and proved deadly at long range counter-battery fire. The 30-pounder had a bore diameter of 4.2 inches and, in one account, had an amazing range of 8,453 yards when fired with an 80-lb. hollow shot. Lieutenant Hains, U.S. Army, fired the opening round of the First Battle of Bull Run from a 30-pounder Parrott.

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John J. Hennessy Simon & Schuster 1993

#### Second Manassas Battlefield Map Study

John J. Hennessy H. E. Howard, Inc. 1989

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1981

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Series I, Volume xii, Parts 1 & 2 United States War Department Washington, D.C. 1880-1901

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Ezra J. Warner Louisiana State University Press 1964

#### Generals in Gray - Lives of the Confederate Commanders

Ezra J. Warner Louisiana State University Press 1959

#### More Generals in Gray

Bruce S. Allardice Louisiana State University Press 1995

#### Time-Life Books Series

1984

#### The Official Military Atlas of the Civil War

Fairfax Press 1978

# 8.0 Parameter Data

#### **Miscellaneous Data**

First Move: Union

### **Time and Visibility Data**

Time:

Dawn: 5:00 Day: 6:00 Dusk: 19:00 Night: 20:00

Visibility:

Day: Unlimited Dawn & Dusk: 4 Hexes Night: 1 Hex

**Minutes Per Turn:** 

Dawn, Day, Dusk: 20 Night: 60

#### **Movement Allowance Data**

Infantry: 12 Supply Wagon: 10
Artillery: 12 Dismounted Cavalry: 12
Cavalry: 24 Unlimbered Artillery: 0

### **Stacking Data**

Maximum infantry/cavalry that can be in a hex is 1000.

Maximum cannon that can be in a hex is 20.

Maximum regiments, batteries and/or supply wagons that can be in a hex is 8.

Exception: Only one supply wagon is allowed per hex.

# **Fatigue Data**

Maximum Fatigue: 9

Day Fatigue Recovery: 5% Night Fatigue Recovery: 20% Fatigue from Fire: 1 Fatigue from Loss: 1 Fatigue from Melee: 1

#### **Command Radius**

**Brigade Radius:** 

Union: 2 Confederate: 3

**Division Radius:** 

Union: 4 Confederate: 6

#### **Breastworks**

Breastwork Construction: 18% Breastwork Movement Penalty: +1 Breastwork Defensive Value: -1

#### **Movement Costs**

Hex	•	•	·	Artillery Limbered	110
Clear	2	2	2	2	3

<b>Forest</b>	4	4	6	8	8
Orchard	3	3	4	6	6
Marsh*	4	4	8	P	P
Town	4	1	2	2	2

<sup>\*</sup> Unit becomes automatically disrupted when entering a Marsh hex

Hexside	Infantry (Line)	Infantry (Column)	Cavalry Mounted	Artillery Limbered	Supply Wagon
Trail	*	2	2	2	2
Road	*	1	1	1	2
Pike	*	1	1	1	1
Rail	*	2	2	2	2
Stream	1	1	2	2	2
Creek	P	P	P	P	P
<b>Embankment</b>	2	2	3	6	6
<b>Up Elevation</b>	1	1	2	2	2
Breastworks	+1	+1	+1	+1	+1

#### **Notes**

- \* = Unit in Line formation gets no benefit when crossing this hexside
  - # = 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.

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**

	I OI III COII,	gc					
Unit	Change	Change	<b>About Face</b>				
	Formation	Facing					
<b>Infantry:</b>	4	2	2				
Cavalry:	6	3	2				
<b>Artillery:</b>	6	2	2				

Rearward Movement Penalty: +1

#### **Ammunition Loss Values**

Each time an Infantry or Cavalry unit uses ranged fire, there is a 4% chance its ammo status will change. The first supply status loss is called "Low Ammo" and the second supply status loss is called "Out of Ammo."

Each time an Artillery unit is captured, the former owner's Artillery Ammo Level is reduced by three.

# **Weapon Effectiveness Table**

	Weapon Class														
Range	В	$\mathbf{C}$	H	K	Ĺ	M	N	P	R	T	$\mathbf{V}$				
1	8	8	12	6	6	6	12	1	4	9	9				
2	4	3	6	3	3	1	6	*	2	6	6				
3	2	1	2	2	2	*	3	*	1	3	3				
4	1	*	1	2	2	*	2	*	1	2	2				
5	*	*	1	2	2	*	2	*	1	2	2				
6-8	*	*	1	2	2	*	2	*	*	2	2				
9	*	*	1	1	1	*	1	*	*	2	2				
10	*	*	*	1	1	*	1	*	*	1	1				
11-12	*	*	*	1	*	*	1	*	*	1	1				
13	*	*	*	1	*	*	*	*	*	1	1				
14-15	*	*	*	*	*	*	*	*	*	1	1				
16-18	*	*	*	*	*	*	*	*	*	1	1				
19-21	*	*	*	*	*	*	*	*	*	*	1				

# is the multiplier of weapon type firing.

#### Weapon Types:

B: Sharps .52-caliber Breechloading Rifle

C: Sharps & Burnside Carbine

H: 12-pounder Howitzer

K: 6-pounder Rifled Cannon

L: 6-pounder Smoothbore

M: Smoothbore Musket

N: 12-pounder Napoleon

P: Pistol

R: Rifle

T: Rifled Cannon

V: 20 and 30-pounder Rifled Cannons

### **Fire Results Table**

Factor/Roll	1	2	3	4	5	6	7	8	9	10	11	12
1-2	0	0	0	0	0	0	0	0	F	F	F	1
3-4	0	0	0	0	0	0	0	F	F	F	1	1
5-6	0	0	0	0	0	0	F	F	F	1	1	1
7-8	0	0	0	0	0	F	F	F	1	1	1	1
9-10	0	0	0	0	F	F	F	1	1	1	1	1
11-14	0	0	0	F	F	F	1	1	1	1	1	2
15-18	0	0	F	F	F	1	1	1	1	1	2	2
19-24	0	F	F	F	1	1	1	1	1	2	2	3
25-30	F	F	F	1	1	1	1	1	2	2	3	3
31-38	F	F	1	1	1	1	1	2	2	3	3	4
39-46	F	1	1	1	1	1	2	2	3	3	4	4
47-56	1	1	1	1	1	2	2	3	3	4	4	5

<sup>\*</sup> means the weapon has no effectiveness at that range.

57-64	1	1	1	1	2	2	3	3	4	4	5	5
65-74	1	1	1	2	2	3	3	4	4	5	5	6
75-84	1	1	2	2	3	3	4	4	5	5	6	6
85-96	1	2	2	3	3	4	4	5	5	6	6	7
97-108	2	2	3	3	4	4	5	5	6	6	7	7

Numeric result indicates strength loss F indicates increase in fatigue

#### **Fire Results Modifiers**

Fatigue: -1 if firer has Low Fatigue; -2 if firer has High Fatigue Quality: +1 if firer is A/B Quality; -1 if firer is E/F Quality Enfilade: +2 if firer gets enfilade bonus Column: +2 if target is infantry in column formation Mounted: +4 if target is mounted cavalry

#### **Hex Side Modifiers:**

Breastworks: -1	Trail: 0	Road: 0
UpElevation: -1	Rail: 0	Pike: 0
Embankment: -2	Stream: 0	Creek: 0

#### **Terrain Modifiers:**

Clear: 0	Town: -1	Orchard: 0
Forest: -1		Marsh: 0

## **Melee Table**

Diff	1	2	3	4	5	6	7	8	9	10	11	12
-4	1/-1	1/-2	1/-3	1/-4	2/-5	2/-6	2/-7	2/-8	3/-9	3/-	3/-	3/-
										10	11	12
-3	-2/1	-1/1	1/-2	1/-3	1/-4	2/-5	2/-6	2/-7	2/-8	3/-9	3/-	3/-
											10	11
-2	-3/1	-2/1	1/-1	1/-2	1/-3	1/-4	2/-5	2/-6	2/-7	2/-8	3/-9	3/-
												10
-1	<b>-</b> 4/1	-3/1	-2/1	1/-1	1/-2	1/-3	1/-4	2/-5	2/-6	2/-7	2/-8	3/-9
0	-5/2	<b>-4</b> /1	-3/1	-2/1	1/-1	1/-2	1/-3	1/-4	2/-5	2/-6	2/-7	2/-8
1	-6/2	-5/2	<b>-4</b> /1	-3/1	-2/1	1/-1	1/-2	1/-3	1/-4	2/-5	2/-6	2/-7
2	-7/2	-6/2	-5/2	<b>-4</b> /1	-3/1	-2/1	1/-1	1/-2	1/-3	1/-4	2/-5	2/-6
3	-8/2	-7/2	-6/2	-5/2	<b>-4</b> /1	-3/1	-2/1	1/-1	1/-2	1/-3	1/-4	2/-5
4	-9/3	-8/2	-7/2	-6/2	-5/2	<b>-4</b> /1	-3/1	-2/1	1/-1	1/-2	1/-3	1/-4
5	-	-9/3	-8/2	-7/2	-6/2	-5/2	<b>-4</b> /1	-3/1	-2/1	1/-1	1/-2	1/-3
	10/											
	3											
6	-	-	-9/3	-8/2	-7/2	-6/2	-5/2	<b>-4</b> /1	-3/1	-2/1	1/-1	1/-2
	11/3	10/										
		3										
7	-	-	-	-9/3	-8/2	-7/2	-6/2	-5/2	<b>-4</b> /1	-3/1	-2/1	1/-1

Absolute value are in terms of defender-losses/attacker-losses. Negative result indicates losing side.

## **Leader Casualty Values**

Fire Wound Value: 2%
Fire Kill Value: 3%
Melee Wound Value: 3%
Melee Kill Value: 4%
Capture Value: 5%

## **Elevation Information**

### **Terrain Elevations (feet):**

Clear: 0 Forest: 50 Orchard: 15 Marsh: 0 Town: 30 Breastwork: 0

# 9.0 Optional Parameter Data

# Fire Results Table

Factor/ Roll	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2	1 3	1 4	1 5	1	1 7	1 8
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	F	F	F
5	0	0	0	0	0	0	0	0	0	0	0	0	0	F	F	F	F	F
6	0	0	0	0	0	0	0	0	0	0	0	F	F	F	F	F	F	F
7	0	0	0	0	0	0	0	0	F	F	F	F	F	F	F	F	F	F
8	0	0	0	0	0	F	F	F	F	F	F	F	F	F	F	F	F	F
9	0	0	0	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
10	0	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
11	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
12	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
13	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
14	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	1	1
15	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	1	1	1
16	F	F	F	F	F	F	F	F	F	F	F	F	1	1	1	1	1	1
17	F	F	F	F	F	F	F	F	F	F	F	1	1	1	1	1	1	1
18	F	F	F	F	F	F	F	F	F	F	1	1	1	1	1	1	1	1
19	F	F	F	F	F	F	F	F	F	1	1	1	1	1	1	1	1	1
20	F	F	F	F	F	F	F	F	1	1	1	1	1	1	1	1	1	1
21	F	F	F	F	F	F	F	1	1	1	1	1	1	1	1	1	1	1
22	F	F	F	F	F	F	1	1	1	1	1	1	1	1	1	1	1	1
23	F	F	F	F	F	1	1	1	1	1	1	1	1	1	1	1	1	1
24	F	F	F	F	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	F	F	F	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	F	F	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	F	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
31	1	1	l	1	l	l	1	I	l	1	l	1	1	1	1	1	2	2
32	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
34	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
35 36	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
36 37	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
37 38	1 1	1	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2							
38 39	2	1	1	1	1	1	1	2	2 2	2	2	2	2	2	2	2	2	3
39 40	2	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3
40 41	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3
41	2	1	1	1	1	2	4	4	2	2	4	4	2	2	4	3	3	3

42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 4 4 4 4	1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 4 4 4 4	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 4 4 4 4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3	2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 4 4 4 4	2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 4 4 4 4	2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 4 4 4 4 4	2 2 2 2 2 2 2 3 3 3 3 3 3 3 4 4 4 4 4 4	2 2 2 2 2 2 3 3 3 3 3 3 3 3 4 4 4 4 4 4	2 2 2 2 3 3 3 3 3 3 3 3 4 4 4 4 4 4 4 5 5 5 5 5	2 2 2 3 3 3 3 3 3 3 3 4 4 4 4 4 4 4 5 5 5 5 5	2 2 3 3 3 3 3 3 3 3 3 4 4 4 4 4 4 4 5 5 5 5	2 3 3 3 3 3 3 3 3 4 4 4 4 4 4 4 4 5 5 5 5	3 3 3 3 3 3 3 3 4 4 4 4 4 4 4 4 5 5 5 5	3 3 3 3 3 3 3 4 4 4 4 4 4 4 4 5 5 5 5 5	3 3 3 3 3 3 3 4 4 4 4 4 4 4 5 5 5 5 5 5	3 3 3 3 3 3 4 4 4 4 4 4 4 4 5 5 5 5 5 5
72 Factor/ Roll 1 2 3 4 5 6 7 8 9 10 11 12	1 9 0 0 F F F F F F F F F F F F F	2 0 0 0 F F F F F F F F F F F F F F F F	5 2 1 0 0 F F F F F F F F F F F F F	5 2 2 0 0 F F F F F F F F F F F F F	5 2 3 0 F F F F F F F F F F F I 1 1	5 2 4 F F F F F F F F F F F F F	5 5 F F F F F F F F F F T 1 1 1	5 6 F F F F F F F I 1 1 1	5 7 F F F F F F 1 1 1 1	5 2 8 F F F F F F F 1 1 1 1	5 2 9 F F F F F 1 1 1 1 1	6 3 0 F F F 1 1 1 1 1 1	6 3 1 F F F 1 1 1 1 1 1 1 1	3 2 F F F 1 1 1 1 1 1 1	3 3 F F 1 1 1 1 1 1 1 1	6 3 4 F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6 3 5 F 1 1 1 1 1 1 1 1 1 1	6 3 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

10	_																	_
13	F	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2 2 2
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
17	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
18	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2 2
19	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
20	1	1	1	1	1	1	1	1	1	1	2	2	2	2 2	2	2 2	2	2
21	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3
22	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3
23	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	2 2 3 3 3 3 3 3 3 4
24	1	1	1	1	1	1	2			2	2	2	2			3 3 3	3	3
25	1	1	1	1	1	2	2	2 2	2 2	2	2	2	2	2 3	3	3	3	3
26	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3
27	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3		2	2
	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	2	3	2
28								2			2		2	2	2	2	2	2
29	1	2	2	2	2	2	2 2	2	2	3	3	3	3	3	3	3 3 3	3	3
30	2	2	2	2	2	2		2 2 3	2 3 3	3	3	3	3	3	3	3		
31	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4	4
32	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4
33	2	2	2	2	2	3	3	3	3	3		3	3	3	4	4	4	4
34	2	2 2	2 2	2	3	3	3	3	3 3 3	3	3	3	3	4	4	4	4	4
35	2	2		3		3		3	3		3		4	4	4	4	4	4
36		2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4
37	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
38	3	3	3	3	3	3	3		3	4	4	4	4	4	4	4	4	4
<b>39</b>	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5
40			3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5
41	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5	5 5 5
42	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5	5	5
43	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5	5	5	5
44	3	3	3	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5 5
45	3	3	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5
46	3	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5
47	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5
48	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	6
49	4	4	4	4	4	4	4	5		5	5		5	5	5	5	6	6
50	4	4	4	4	4	4	5	5	5 5 5	5	5	5 5	5	5	5	6	6	6
51	4	4	4	4	4	5	5	5	5	5	5	5	5	5	6	6	6	6
	4 4	4	4	4	5	5	5	5	5	5	5	5	5		6	6		
52 53						3		3	3					6			6	6
53	4	4	4	5	5	5	5	5	5 5	5	5	5	6	6	6	6	6	6
54	4	4	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6
55	4	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6
56	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6
57	5 5	5 5	5 5	5 5	5 5	5 5	5	5	6	6	6	6	6	6	6	6	6	7
<b>58</b>				_	_	_	5	6	6	6	6	6	6	6	6	6	7	7

59	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7
60	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7
61	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7
62	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7
63	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7
64	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7
65	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7
66	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8
67	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8
68	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8
69	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8	8
<b>70</b>	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8	8	8
71	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8
72	6	6	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8

# Numeric result indicates strength loss F indicates increase in fatigue

Note: All fire modifiers are multiplied by 3.

			<b>Melee Table</b>										
Diff	2	3	4	5	6	7	8	9	10	11	12		
-3	4/-9	4/-8	3/-7	2/-6	1/-5	1/-5	1/-5	2/-6	3/-7	4/-8	4/-9		
-2	-4/8	3/-7	2/-6	1/-5	1/-4	1/-4	1/-4	1/-5	2/-6	3/-7	4/-8		
-1	-3/7	-2/6	1/-5	1/-4	1/-3	1/-3	1/-3	1/-4	1/-5	2/-6	3/-7		
0	2/-6	1/-5	-1/4	-1/3	-1/2	1/-2	1/-2	1/-3	1/-4	1/-5	2/-6		
1	1/-5	1/-4	-1/3	-1/2	-1/1	-1/1	1/-1	1/-2	1/-3	1/-4	1/-5		
2	<b>-6</b> /1	-5/1	<b>-4</b> /1	-3/1	2/-1	-2/1	2/-1	2/-1	<b>-4</b> /1	-5/1	-6/1		
3	-7/2	<b>-6</b> /1	-5/1	<b>-4</b> /1	-3/1	-3/1	2/-1	3/-1	-5/1	-6/1	3/-2		
4	-8/3	-7/2	<b>-6</b> /1	-5/1	<b>-4</b> /1	<b>-4</b> /1	<b>-4</b> /1	-5/1	2/-1	3/-2	4/-3		
5	-9/4	-8/3	-7/2	<b>-6</b> /1	-5/1	-5/1	-5/1	-6/1	-7/2	4/-3	5/-4		
6	-10/4	-9/3	-8/3	-7/2	<b>-6</b> /1	-6/1	<b>-6</b> /1	-7/2	-8/3	-9/3	-10/4		

Absolute value are: defender-losses/attacker-losses. Negative result indicates losing side.

Note: "Dice rolls" on this Melee Table use two 6-sided dice.

# 10.0 Order of Battle

# **Army of Virginia**

Major General John Pope

# **I Corps**

Maj. Gen. Franz Sigel

# 1st Division (Schenck)

Brig. Gen. Robert C. Schenck

1st Brigade (Stahel)

Brig. Gen. Julius Stahel

8th New York

41st New York

45th New York

27th Pennsylvania

#### 2nd Brig (McLean)

Col. Nathaniel C. McLean

25th Ohio

55th Ohio

73rd Ohio

75th Ohio

#### **Division Artillery**

Btry K, 1st Ohio Lt 2nd Btry, NY Lt

## 2nd Div. (von Steinwehr)

Brig. Gen. A. von Steinwehr

1st Brigade (Koltes)

Col. John A. Koltes

29th New York

68th New York

#### 73rd Pennsylvania

# 3rd Division (Schurz)

Brig. Gen. Carl Schurz

### 1st (Schimmelfennig)

## Col. A. Schimmelfennig

61st Ohio 74th Pennsylvania 8th West Virginia

## 2nd (Krzyzanowski)

#### Col. W. Krzyzanowski

54th New York 58th New York 75th Pennsylvania

#### Attached

3rd W.V. Cav. Co. C

#### **Division Artillery**

Btry F, Penn Lt Btry L, 2nd NY Lt Btry I, 1st Ohio Light

### Inde Brigade (Milroy) Brig. Gen. Robert H. Milroy

82nd Ohio
2nd West Virginia
3rd West Virginia
5th West Virginia
1st W.V. Cav., Co. C, E & L
12th Btry, Ohio Light

# Cav Brig (Beardsley) Col. John Beardsley

1st Connecticut Btln

1st Maryland Cav.

4th New York Cav. 9th New York Cav. 6th Ohio Cav.

### **Reserve Artillery**

Btry I, 1st NY Lt 13th Btry, NY Lt Btry C, WV Lt

# **II Corps**

Maj. Gen. Nathaniel P. Banks

# 1st Division (Williams)

Brig. Gen. Alpheus S. Williams

# 1st Brig (Crawford)

Brig. Gen. Samuel W. Crawford

5th Connecticut Btln 10th Maine 28th New York 46th Pennsylvania

### 3rd Brigade (Gordon) Brig. Gen. George H. Gordon

27th Indiana 2nd Massachusetts 3rd Wisconsin

# 2nd Division (Greene)

Brig. Gen. George S. Greene

1st Brigade (Candy) Col. Charles Candy

> 5th Ohio 7th Ohio 29th Ohio

66th Ohio

#### 28th Pennsylvania

### 2nd (Schlaudecker) Col. M. Schlaudecker

3rd Maryland 102nd New York 109th Pennsylvania 111th Pennsylvania 8th & 12th US

#### 3rd Brigade (Tait) Col. James A. Tait

3rd Delaware 1st D.C. 60th New York 78th New York Purnell Legion

#### **Corps Artillery**

4th Btry, Maine Lt Btry M, 1st NY Lt 10th Btry, NY Lt Btry E, Penn Lt Btry F, 4th US

## Cav Brigade (Buford) Brig. Gen John Buford

1st Michigan Cav 5th New York Cav 1st Vermont Cav 1st W.V. Cav

# **III Corps**

Maj. Gen. Irvin McDowell

1st Division (Hatch) Brig. Gen. John P. Hatch

#### 1st Brig (Sullivan)

#### **Colonel Timothy Sullivan**

22nd New York

24th New York

30th New York

84th NY(14 Militia)

2nd US Sharpshooters

### 2nd Brig (Doubleday)

#### Brig. Gen. Abner Doubleday

76th New York

95th New York

56th Pennsylvania

#### 3rd Brig (Patrick)

#### Brig. Gen. Marsena R. Patrick

21st New York

23rd New York

35th New York

80th NY (20 Militia)

#### **Blk Hat Bde (Gibbon)**

#### Brig. Gen. John Gibbon

19th Indiana

2nd Wisconsin

6th Wisconsin

7th Wisconsin

#### **Artillery Brigade**

1st NH, Indep. Lt

Btry D, 1st RI Lt

Btry L, 1st NY Lt

Btry B, 4th US

### 2nd Division (Ricketts)

Brig. Gen. James Ricketts

1st Brigade (Duryea)

#### Brig. Gen. Abram Duryea

97th New York 104th New York 105th New York 107th Pennsylvania

# 2nd Brigade (Tower)

#### Brig. Gen. Zealous B. Tower

26th New York 94th New York 88th Pennsylvania 90th Pennsylvania

### 3rd Brigade (Stiles)

#### Col. John W. Stiles

12th Massachusetts 13th Massachusetts 83rd NY (9th Militia) 11th Pennsylvania

# 4th Brig (Thoburn) Col. Joseph Thoburn

7th Indiana 84th Pennsylvania 110th Pennsylvania 1st West Virginia

#### **Artillery Brigade**

2nd Btry, Maine Lt 5th Btry, Maine Lt Btry F, 1st Penn Lt Btry C, Penn Lt

# Cav Brigade (Bayard) Brig. Gen George D. Bayard

1st Maine
1st New Jersey
2nd NY Cav
1st Pennsylvania

#### 1st Rhode Island

#### **Attached**

3rd Indiana Cav 16th Btry, Indiana Lt Btry E, 4th US

# Pa. Reserves (Reynolds)

Brig. Gen. John F. Reynolds

#### 1st Brigade (Meade)

#### Brig. Gen George G. Meade

3rd Pa. Reserves

4th Pa. Reserves

7th Pa. Reserves

8th Pa. Reserves

13th Pa. Bucktails

# 2nd Brig (Seymour)

#### Brig. Gen. Truman Seymour

1st Pa. Reserves

2nd Pa. Reserves

5th Pa. Reserves

6th Pa. Reserves

#### 3rd Brig (Jackson)

# Brig. Gen. Conrad F. Jackson

9th Pa. Reserves

10th Pa. Reserves

11th Pa. Reserves

12th Pa. Reserves

#### **Artillery Brigade**

Btry A, 1st Penn Lt

Btry B, 1st Penn Lt

Btry G, 1st Penn Lt

Btry C, 5th US

# **Reserve Corps**

Brig. Gen. Samuel D. Sturgis

1st Brigade (Piatt)
Brig. Gen. A. Sanders Piatt
63rd Indiana
86th New York

#### Attached

2nd NY Heavy Arty 11th Btry, NY Lt Btry C, 1st NY Lt

# **IX Corps**

Maj. Gen. Ambrose E. Burnside

**1st Division (Stevens)** Brig. Gen Isaac I. Stevens

1st Brigade (Christ)
Col. Benjamin C. Christ
8th Michigan
50th Pennsylvania

2nd Brig (Leasure)
Col. Daniel Leasure
46th New York
100th Pennsylvania

3rd Brig (Farnsworth)
Col. Addison Farnsworth
28th Massachusetts
79th NY "Highlanders"

Artillery 8th Btry, Mass Lt Btry E, 2nd US

## 2nd Division (Reno)

Maj. Gen. Jesse L. Reno

# 1st Brigade (Nagle)

Brig. Gen. James Nagle

2nd Maryland 6th New Hampshire

48th Pennsylvania

## 2nd Brig (Ferrero)

#### Col. Edward J. Ferraro

21st Massachusetts 51st New York

51st Pennsylvania

### Artillery

Btry D, Penn Lt

#### **Kanawha Division**

Brig. Gen. Jacob Cox

#### 1st Brig (Scammon)

#### Col. Eliakim P. Scammon

12th Ohio

23rd Ohio

30th Ohio

Btry L, Ohio Lt

#### 2nd Brigade (Moor)

Col. A. Moor

28th Ohio

34th Ohio

37th Ohio

Kentucky Lt Arty

# 3rd Brigade (Crook)

Col. George Crook

11th Ohio 36th Ohio 44th Ohio 47th Ohio

# **Army of the Potomac**

Maj. Gen. George B. McClellan

# **III Corps**

Maj. Gen. Samuel P. Heintzelman

# 1st Division (Kearny)

Maj. Gen. Philip Kearny

# 1st Brig (Robinson)

Brig. Gen. John C. Robinson

20th Indiana

63rd Pennsylvania

105th Pennsylvania

30th Ohio (detach)

#### 2nd Brigade (Birney)

#### Brig. Gen. David B. Birney

3rd Maine

4th Maine

1st New York

38th New York

40th New York

101st New York

57th Pennsylvania

# 3rd Brigade (Poe)

Col. Orlando M. Poe

2nd Michigan

3rd Michigan

5th Michigan

37th New York 99th Pennsylvania

#### Artillery

Btry E, 1st RI Lt Btry K, 1st US

## 2nd Division (Hooker)

Maj. Gen. Joseph Hooker

# 1st Brigade (Grover)

## Brig. Gen. Cuvier Grover

1st Massachusetts
11th Massachusetts

16th Massachusetts

2nd New Hampshire

26th Pennsylvania

#### 2nd Brigade (Taylor)

### Col. Nelson Taylor

70th New York

71st New York

72nd New York

73rd New York

74th New York

# 3rd Brigade (Carr)

#### Col. Joseph B. Carr

5th New Jersey

6th New Jersey

7th New Jersey

8th New Jersey

2nd New York

115th Pennsylvania

#### **Artillery**

6th Btry, Maine Lt

# V Corps

Maj. Gen. Fitz John Porter

### 1st Division (Morell)

Maj. Gen. George W. Morell

#### 1st Brig (Roberts)

#### Brig. Gen. Charles W. Roberts

2nd Maine

18th Massachusetts

22nd Massachusetts

1st Michigan

13th New York

25th New York

## 2nd Brig (Griffin) Brig. Gen. Charles Griffin

9th Massachusetts

32nd Massachusetts

4th Michigan

14th New York

62nd Pennsylvania

# 3rd Brig (Butterfield)

# Brig. Gen. Daniel Butterfield

16th Michigan

12th New York

17th New York

44th New York

83rd Pennsylvania

#### Sharpshooters

1st US SS

#### **Artillery Brigade**

Btry C, Mass Lt

Btry C, 1st RI Lt

Btry D, 5th US

## 2nd Division (Sykes)

Brig. Gen. George Sykes

#### 1st Brig (Buchanan)

#### Lt. Col. Robert Buchanan

3rd US

4th US

12th US, 1st Btln

14th US, 1st Btln

14th US, 2nd Btln

#### 2nd Brig (Chapman)

#### Lt. Col. William Chapman

1st US, Co. G

2nd US

6th US

10th US

11th US

17th US

## 3rd Brigade (Warren)

#### Col. Gouverneur K. Warren

5th New York

10th New York

#### **Artillery Brigade**

Btry E/G, 1st US

Btry I/K, 5th US

# VI Corps

Maj. General William B. Franklin

1st Division (Slocum)

Brig. Gen. Henry W. Slocum

#### 1st Brigade (Taylor) Brig. Gen. George W. Taylor

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

4th New Jersey

#### 2nd Brig (Bartlett) Col. Joseph J. Bartlett

5th Maine 16th New York 27th New York 96th Pennsylvania

#### 3rd Brigade (Newton) Brig. Gen. J. Newton

18th New York 31st New York 32nd New York 95th Pennsylvania

#### **Artillery**

1st Mass Indep. Btry A, NJ Lt Btry D, 2nd US

# 2nd Division (Smith)

Brig. Gen William Smith

# 1st Brig (Hancock) Brig. Gen. Winfield Scott Hancock

6th Maine
5th Wisconsin
43rd New York
49th Pennsylvania

2nd Brigade (Brooks)
Brig. Gen. W.T.H. Brooks
2nd Vermont

3rd Vermont

4th Vermont

5th Vermont

6th Vermont

## 3rd Brig (Corning) Lieut. Col. Joseph W. Corning

7th Maine

20th New York

33rd New York

49th New York

77th New York

#### **Artillery**

1st Btry NY Indep. Btry F, 5th US Btry B, Maryland Lt

# **Army of Northern Virginia**

Gen. Robert E. Lee

## Right Wing, Longstreet's Corps

Maj. Gen. James Longstreet

## R.H. Anderson's Division

Maj. Gen. Richard H. Anderson

#### Armistead's Brigade

#### Brig. Gen. Lewis A. Armistead

9th Virginia

14th Virginia

38th Virginia

53rd Virginia

57th Virginia

#### Mahone's Brigade

#### Brig. Gen. William Mahone

6th Virginia

12th Virginia

16th Virginia

41st Virginia

49th Virginia

#### Wright's Brigade Brig. Gen. A.R. Wright

3rd Georgia

22nd Georgia

44th Georgia

48th Georgia

#### **Attached Artillery**

Norfolk Artillery Moorman's Battery

## D.R. Jones' Division

Brig. Gen. D.R. Jones

## Toombs' Brigade

## Col. Henry L. Benning

2nd Georgia

15th Georgia

17th Georgia

20th Georgia

## Drayton's Brigade Brig. Gen. Thomas F. Drayton

50th Georgia

51st Georgia

15th S Carolina

Phillips' Ga Legion

## G.T. Anderson's Bde

Col. G.T. Anderson

1st GA Regulars

7th Georgia

8th Georgia 9th Georgia 11th Georgia

#### Wilcox's Division

#### Brig. Gen. Cadmus Wilcox

Wilcox's Brigade

8th Alabama

9th Alabama

10th Alabama

11th Alabama

Anderson's Va Btry

## Pryor's Brigade Brig. Gen. Roger Pryor

14th Alabama

5th Florida

8th Florida

3rd Virginia

## Featherston's Brigade Brig. Gen. W.S. Featherston

12th Mississippi

16th Mississippi

19th Mississippi

2nd Miss. Btln

Chapman's Va Battery

## **Hood's Division**

Brig. Gen. John Bell Hood

#### **Hood's Brigade**

18th Georgia

1st Texas

4th Texas

5th Texas

Hampton Legion

#### Whiting's Brigade Brig. Gen. Evander M. Law

4th Alabama 2nd Mississippi 11th Mississippi 6th N Carolina

#### **Divisional Artillery**

Charleston German Palmetto Battery Rowan Artillery

## **Kemper's Division**

Brig. Gen. James L. Kemper

# Kemper's Brigade Col. M.D. Corse

1st Virginia 7th Virginia 11th Virginia 17th Virginia 24th Virginia

## Jenkins' Brigade Brig. Gen. M. Jenkins

1st SC Volunteers 2nd SC Rifles 4th SC Battalion 5th S Carolina 6th S Carolina Palmetto SS

## Pickett's Brigade Col. Eppa Hunton

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

#### Evan's Brigade (Inde) Brig. Gen. N.G. Evans

17th S Carolina

18th S Carolina

22nd S Carolina

23rd S Carolina

Holcombe Legion

Macbeth Artillery

## **Artillery of the Right Wing**

#### **Washington Artillery**

1st Co, Wash Art

2nd Co, Wash Art

3rd Co, Wash Art

4th Co, Wash Art

#### S.D. Lee's Battalion

Eubanks' Btry

Bedford Btry

Rhett's Btry

Taylor's Battery

Grimes' Battery

Parker's Btry

#### Misc. Artillery

Leake's Battery

Donaldsonville Arty

Loudoun Battery

Fauquier Arty

# Left Wing, Jackson's Corps

Maj. Gen. Thomas J. Jackson

**Jackson's Division** 

Brig. Gen. Wm. E. Starke

#### 1st Brigade (Baylor)

## Col. W.S.H. Baylor

2nd Virginia

4th Virginia

5th Virginia

27th Virginia

33rd Virginia

## 2nd Brig (Johnson) Col. Bradley T. Johnson

21st Virginia

42nd Virginia

48th Virginia

1st Va Btln

## 3rd Brig (Taliaferro)

#### Col. A.G. Taliaferro

47th Alabama

48th Alabama

10th Virginia

23rd Virginia

37th Virginia

## 4th Brig (Stafford) Colonel Leroy A. Stafford

1st La Volunteers

2nd Louisiana

9th Louisiana

10th Louisiana

15th Louisiana

Coppen's La. Btln

#### **Divisional Artillery**

Brockenbrough's Btry

Carpenter's Battery

Caskie's Battery

Cutshaw's Battery

Poague's Battery

Raine's Battery

#### Rice's Battery Wooding's Battery

## A.P. Hill's Light Division

Maj. Gen. Ambrose P. Hill

## Branch's Brigade Brig. Gen. L.O'Brien Branch

7th N Carolina

18th N Carolina

28th N Carolina

33rd N Carolina

37th N Carolina

#### Pender's Brigade Brig. Gen. Wm. D. Pender

16th N Carolina

22nd N Carolina

34th N Carolina

38th N Carolina

## Gregg's Brigade Brig. Gen. Maxcy Gregg

1st S Carolina

1st SC Rifles

12th S Carolina

13th S Carolina

14th S Carolina

#### Archer's Brigade Brig. Gen. James Archer

5th Alabama Btln

19th Georgia

1st Tennessee

7th Tennessee

14th Tennessee

Field's Brigade Brig. Gen. C.W. Field 40th Virginia 47th Virginia 55th Virginia 22nd Virginia Btln

#### Thomas's Brigade Col. Edward L. Thomas

14th Georgia35th Georgia45th Georgia49th Georgia

#### **Divisional Artillery**

Braxton's Battery Crenshaw's Battery Davidson's Battery Fleet's Battery Latham's Battery McIntosh's Battery Pegram's Battery

# **Ewell's Division** Brig. Gen. A.R. Lawton

## Lawton's Brigade Colonel M. Douglass

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

## Trimble's Brigade Brig. Gen. I.R. Trimble

15th Alabama 12th Georgia 21st Georgia 21st N Carolina

#### 1st NC Battalion

#### Early's Brigade Brig. Gen. Jubal Early

13th Virginia

25th Virginia

31st Virginia

44th Virginia

49th Virginia

52nd Virginia

58th Virginia

## Hay's Brigade (Forno) Col. Henry Forno

5th Louisiana

6th Louisiana

7th Louisiana

8th Louisiana

14th Louisiana

#### **Divisional Artillery**

Balthis' Battery

Brown's Battery

D'Aquin's Battery

Dement's Battery

Johnson's Battery

Latimer's Battery

# **Stuart's Cavalry Division**

Maj. Gen. J.E.B. Stuart

## Hampton's Brigade Brig. Gen. Wade Hampton

10th Virginia

1st N Carolina

2nd S Carolina

Cobb's Legion

Jeff Davis Legion

## Robertson's Brigade Brig. Gen. B.H. Robertson

2nd Virginia

6th Virginia

7th Virginia

12th Virginia

17th Va Btln

## Fitzhugh Lee's Bde Brig. Gen. Fitzhugh Lee

1st Virginia

3rd Virginia

4th Va "Black Horse"

5th Virginia

9th Virginia

## Horse Arty (Pelham)

Pelham's battery Hart's battery