

## FOREWORD

My purpose in constructing a system of enhanced movement is twofold:

1. Discriminate between maneuver in line formation as opposed to column
2. Establish as best as possible the true marching speeds on both pikes and roads

The small base (12) utilized in both HPS and the Battleground series simply does allow for any differences in either of the two stated cases.

In establishing a new base, however, *average marching speed* is the point from which one must begin. All other movement capabilities are relative to this benchmark. *Average marching speed* includes all rest breaks, delays of whatever nature, and all environmental factors which would affect the rate of a march. These digital soldiers which we move about the maps require no rest or other such “considerations”, so what might be physically possible for a period of 1 or 2 hours under ideal conditions should not be their *movement factor*. The historical record can be a guide in this regard.

At the end of this document I have included a bibliography of the authors which I consulted in attempting to answer the question “What was the average rate of marching for infantry columns in the Civil War?”

## INDIVIDUAL BATTLES vs CAMPAIGN OR LARGE MAP OPERATIONS

The discussion of pike and road movement will suggest a different rate for roads. This is pertinent to *large maps* or *campaign* games. For *individual battles* where double-timing or accelerated movement is more likely and the operational area much smaller, the current rate has merit. This involves changing the PDT values for road movement to that of pikes, while maintaining the differential between line/column.

## MOVEMENT POINTS FOR PIKES AND ROADS

The following figures provide a reference when determining average marching speeds. They reflect HPS hexes per :20 turn and speed in miles per hour:

14 hexes = 3 mph      12 hexes = 2.55 mph      10 hexes = 2.1mph      8 hexes = 1.7 mph

To say that there is a paucity of information (even on the Internet) on the quality of Civil War roads and turnpikes would be an understatement. *Pikes (turnpikes)* were improved roads in varying degrees. Some had begun as toll roads and were in better condition than others. Some were turnpikes in name only. Although not necessarily all-weather, the surfaces were better than what are indicated as *roads* in these games. The condition of the latter varied from mediocre to abysmal. If there exists a difference between marching on pikes, as opposed to roads (and trails), what is it? For historical grounding in this discussion we can turn to Civil War historians **Stephen Sears** and **Harry Pfanz**.

A good reference point is the forced march of the Union VI Corps to Gettysburg as well as Pfanz's description of two of the other main roads, Taneytown and Emmittsburg. Sears in Gettysburg relates that the VI Corps left Manchester on July 1<sup>st</sup> for a 35 mile march over 19 hours. Sears has VI Corps marching first to Westminster then up the Gettysburg Pike, while Pfanz writes that they likely moved west via one of the "local roads" rather than the better roads toward Westminster. Pfanz's Gettysburg-The Second Day is copyrighted 1987; Sears 2003. Whether Sears found new evidence in the intervening years really does not impact the analysis. The bulk of the march was via the Gettysburg/Baltimore Pike. Pfanz additionally notes: "Sedgwick reported that the Sixth Corps marched over 30 miles, Wright reported 32-35, Upton 32, and Grant about 30." Since the point is to determine the average marching speed, I will use 35 as the figure.

35 x 14 = 490 hexes marched (14 hexes approximates a mile in the HPS system)

19 hours total; 7 hours night (7 HPS turns), 12 hours day (36 HPS turns) for a total of 43 turns

490 hexes / 43 turns = 11.4 hexes per turn marching speed

Pfanz places the VI Corps on the Gettysburg Pike at 4:00 AM. He indicated that they had marched 7 miles from Manchester during the night. If this is correct, then the calculation would be:

28 x 14 = 392

12 hours x 3 = 36 turns

392 / 36 = 10.9 hexes per turn marching speed

Regardless of which analysis is correct, this was a forced march of a veteran Corps with the only documented break being about a half hour at dawn. How much the "forced" part of the march would overcome any fatigue factor is just a guess, but the average marching speed was less than 12 hexes per turn on a *pike*.

Let's examine another of the famous forced marches of the Civil War; that of A.P. Hill from Harper's Ferry to save the day at Antietam. **Sears** chronicles in Landscape Turned Red:

*"His Light Division's remarkable march from Harper's Ferry – seventeen miles in less than eight hours – rivaled the best marks of Jackson's famous foot cavalry."*

(This averaged 10 – 10.5 hexes per turn. It's hard to imagine a normal marching speed being close.)

The description of the achievements of both the VI Corps and the Light Division along good roads of the time would tend to highlight 12 hexes per turn as being a little generous, even for pikes. But Civil War armies sought these as avenues of advance (or retreat) when they could.

What then of *roads* as defined in these games? What was the rate of marching along these? That Gettysburg was a crossroads is well known. Although the quality of the roads leading in might not be as

good as those between major cities, they certainly had to be representative and probably better than most roads throughout the various theatres of the Civil War. Quoting **Pfanz**:

Pertaining to Meade's attention on his right on July 2<sup>nd</sup>: *"Should the Confederate army attack vigorously..., the Baltimore Pike might have to serve as the Federals' principal line of retreat. Unlike the Taneytown Road and even the Emmittsburg Road, the Baltimore Pike was an improved road,..."*

The Taneytown Road: *"The Taneytown Road was narrow and rough and could not carry an abundance of traffic. To make the most efficient use of it, the corps (Second) vehicles and artillery used its crown while the infantry walked to the sides."*

The Emmittsburg Road during III Corps march to Gettysburg: *"The march was not an easy one: the weather was hot and sultry, and the road, which was not a turnpike, was in poor condition. Soldiers of Graham's brigade found the road muddy and slippery, and Ward described it as 'horrible'."*

**Pfanz** further describes the march of the V Corps from Union Mills to Hanover (12 miles in 7-8 hours) and the subsequent move to Gettysburg (8 miles in 5-6 hours halting at midnight followed by 4 miles in 3 hours after they broke camp at 4:00 AM).

Much of the narrative to this point has focused on the "better" roads of the East (and the North). What of the rest? **Brent Nosworthy** describes the typical Civil War march:

*"Marching along roads on a clay bed proved particularly problematic. On a hot, dry summer day, the thousands of stomping feet and horses' hooves would quickly pulverize the clay into a fine, flourlike dust, which frequently lay on the ground several inches deep....Marching along limestone beds often produced a like effect."*

*"Marching conditions only got worse as the weather changed. If it was miserable to march along clay or limestone roads in sunny, dry weather, it quickly became a nightmare when it rained.... As bad as this was, conditions worsened during the winter."*

Others add their commentary:

**Larry Daniels** notes in *Shiloh*:

*"Only two narrow roads led toward Pittsburg Landing – the Ridge Road,.....and the Monterey Road,... Previous reconnaissance patrols had revealed the wretched condition of both roads"*

**Sears** in his description of movement in the Peninsula Campaign:

*"The topic of most consuming interest to these Yankee soldiers, however, was how incredibly difficult it was to get from one place to another on this Virginia Peninsula. 'Our marches since the battle have been very monotonous,.....only varied by changes from heat and dust to rain and mud, and vice-versa.'"*

*"In the two weeks after Williamsburg, the Yankee soldiers marched on average a total of only forty to fifty miles,..."*

(This describes the roads and the general difficulty of marching in the Peninsula campaign.)

The question in these games is not what constitutes a “road”, but rather how fast could a Civil War infantry column march on those so designated. Some historical perspectives:

**Harry Pfanz** Gettysburg: The Second Day:

*“Despite a long and tiring day, Longstreet’s divisions had marched only about twelve miles.”*

*(March occurred from 1600 to midnight which equates to 1.5 mph.)*

*“Since Johnson’s division passed McLaws’s early in the morning and did not reach Gettysburg until evening, after the fighting was over, it is obvious that the march was a slow one, less than two miles per hour on a turnpike.”*

*(A.P. Hill’s wagons were partially to blame in this regard, but the march was on the Chambersburg Pike along with that of Longstreet’s divisions.)*

**Ernest Furguson** Chancellorsville 1863:

*“At Jackson’s direction, the column turned east on the pike for less than a mile and stopped....To get there they had tramped more than 12 miles through the woods in roughly eight hours.”*

*(Description of Jackson’s final approach to the Union right flank just preceding his attack.)*

**David G. Martin** The Second Bull Run Campaign:

*“Because of the armies slow march rates (ten miles was usually considered a good day’s effort) and the constricted area of the Virginia theater between the mountains to the west and the ocean to the east, most of the fighting there consisted of set piece battles on well-traveled terrain.”*

*(Depending upon environmental conditions, the average daily march encompassed 6-8 hours. One can do the math.)*

*“Ewell’s division was the only part of Jackson’s command to cover a significant amount of ground on this confusing and very hot day....This detachment made good time, and....reached Barnett’s Ford well ahead of the rest of Jackson’s men,...The day’s intense heat forced the column to go into camp about 1400 at Crooked Run Church, after marching some 8 to 10 miles.*

*(This encompassed about 6-7 hours of marching and was considered “good time”. Consistent with the previous description this was a maximum average speed of 1 ½ to 1 2/3 miles per hour.)*

**Peter Cozzens** The Darkest Days of the War:

Rosecrans approach to luka:

*“The roads were in splendid order, hard, and entirely free from dust. The men marched...in fine order, none lagging and very few straggling” ....Progress was good. The cavalry covered 6 miles..., the infantry three...”*

*(This was 3 miles in 2:00 hours or 7 hexes per turn)*

Van Dorn’s approach to Corinth:

*“Price broke camp at daylight on September 30. His men marched quickly...covering eighteen miles before they stopped for the night...”*

*(Daylight to dark would be more than 10 hours, but, assuming this timeframe, the average would be 1.8 mph or 8 hexes per turn.)*

*October 1 was clear and warm. The sandy surface of the Ripley-Pocahontas road scorched the feet of Price’s soldiers...But they marched hard, covering 8 miles before going into camp...*

*(All day march covering 8 miles and, from the narrative, they arrived at Metamora a little before twilight. A specific time is not noted, but this “hard march” could not have averaged much beyond 1 -1.5 mph.)*

*The Confederates were closer than Rosecrans realized. They had, as Rosecrans guessed, passed the night near Chewalla but were on the road at 4:00 AM.... Van Dorn drove the army hard. He launched the infantry on a nine-mile forced march, intending to attack the moment he reached Corinth. In spite of the mad pace of the march...there is no doubt Villepigue’s Mississippians were exhausted when they ran up against their first obstacle: Oliver’s command drawn up at Alexander’s Crossroads.*

*Scattered shots from the skirmish line announced the enemy at 7:00 AM...*

*(When this contact occurred, the head of the CSA column had covered about 5.5 miles in 3:00 hours. This is about 8.5 hexes per turn on a forced march. Additionally, the Chewalla Road is displayed on the Corinth map as a pike.)*

All these historical commentaries indicate that, notwithstanding some memorable marches documented during the Civil War, the general pace on roads seemed to be 1.25 – 1.75 miles per hour. All of the described situations were in periods of good weather. I could find no historical accounts of average marching speeds greater than what have been previously outlined. Certainly, many could have been for less. What the “exact” averages for pikes and roads should be is probably close to 11 and 7 respectively. As factors these don’t work in these games, however. Although at their respective high ends, 12 and 8 make a good combination.

**Pikes = 12 per turn**

**Roads = 8 per turn**

## **BIBLIOGRAPHY**

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