Artillery has been an important part of battle since the siege and fall of Constantinople. Napoleon began as an artillery officer and are not the deadly missiles of today merely another form of artillery?

In the American Civil War artillery was used for bombardment mostly. Those brave enough to bring their cannons in close usually died young as the rifled musket had made infantry a lot more effective than they were in Napoleon's heyday. So it follows the game is designed to give infantry the same potency. It does give infantry this effectiveness and artillery should stay out of their range. So the optimum tactic seems to be a bombardment from 7-11 hexes.

If the enemy closes in a wild assault the powerful close range multiples are useful when one has first shot

This is fine in theory — "keep far away except when the enemy closes". In the game itself you will find it harder to put this into practice.

The case in which it is most difficult is the Confederate's advance along the Chambersburg Pike at the game beginning. The many ridges and very often your own troops block the artillery's line of sight. Since for most of this advance the Confederate player has 46 pieces of artillery, correct usage at this stage will make considerable difference. You will see very few enemy assaults to collapse with your artillery which is, I suppose, a healthy complaint but still a complaint. Time will also be against you because one must halt the advance and keep the line of sight free while you unlimber and fire off your batteries at the enemy.

The best procedure for attacking the enemy cavalry lying prone behind a ridge is as follows:

- (1) Using four movement points advance 7-11 hexes away from the enemy. Using the remaining MP's unlimber. Move any line of sight blocking units out of the way (obviously you need a terrain-clear line of sight to begin with). Now your artillery's finished for that player turn.
- (2) In your enemy's turn, fire during your offensive fire phase. His fire shouldn't be too bothersome.
- (3) On your next turn, fire in the Artillery Bombardment phase. Then in your movement phase melee your infantry forward.

Although 7-11 hexes is optimum you might find it necessary to come in as close as 4-5 hexes in order that your infantry will be close enough to assault the enemy line and yet not block your line of sight. If possible, however, keep them on the wings so they can charge in without you being forced to risk any artillery. On the advance up the Chambersburg, this isn't important since the Union cavalry are short ranged and too few to sortie. In fact, along the Chambersburg at least until the arrival of the Iron Brigade and its accompanying brigade, optimum range could be anywhere from 4-11 hexes but I think closing into three hexes range would be tempting fate. Handling your artillery with a little caution can make a great deal of difference, especially in the grand game.

Using this procedure you will get two fires for a minimum expenditure of time and minimum risk. How effective the results are is mostly a matter of luck. Because of the disadvantage artillery has in firing against dismounted cavalry behind a ridge, one needs five four-gun batteries to have any reasonable chance.

That is 20 guns halved against infantry and dismounted cavalry equivilent to 10 guns. At 4-11 hexes range there is a multiplier of one. That attack is on the 10-15 column lowered two columns. (One for the ridge and one for the fact the cavalry are lying prone). So the final attack is found on the 4-6 column.

## ARTILLERY in T.S.S.

ARTILLERY TACTICS IN SPI's "TERRIBLE SWIFT SWORD"



Since you fire twice the best result one could have (a 4 or 5 against stacked units) would be 400 dead. This success would be surprising as every attack has a 50-50 chance of failing altogether. Since one needs five batteries per target one is unlikely to have two separate attacks on each turn ( ever try to get a 10 hex long frontage in those battles). One major point about that attack, always fire against stacked units whenever possible. You're allowed to attack both separately and the chances of routing them, at least, are fairly good.

Still it is obvious that even if that technique risks as little as possible, its returns aren't great. This next technique can be used in conjunction with my first (or not, at your discretion).

Let's assume you have followed the first technique and you have just fired in the artillery bombardment phase. Now once again your infantry is moved in adjacent, prepared for melee. Now limbered artillery is moved up on top of the charging infantry (if possible only use four MPs to get there and unlimber but that is of less importance). Now the enemy's defensive fire. Bits of artillery men start rolling down the ridge. But since it is impossible to rout artillery none of the infantry below will be routed either. So then comes your melee phase — your lads can charge in, intact.

If any Union troops defeat your units in the melee, next turn your surviving batteries will be able to pound them (although by this time they might be down to two or even one gun per battery).

This tactic, although it's effective, cannot be used often as even at the beginning of the first day when they have over seven times as many guns as the Union cavalry, the Confederates cannot afford

super-heavy losses. This somewhat bloody tactic can really only be used once.

My own suggestion would be to push the cavalry off the Herr Tavern line without risking your artillery. An exception might arise from the fact that Hill 2115 is wide open to attack at the grey hexside of its southwest slope. This hill dominates the Herr Tavern line and its fall would void the whole line.

The Union player will probably attempt to hold you at McPherson's Ridge using both the First Division of the First Corps and surviving cavalry. In the open ground before this ridge the artillery and infantry can be manoeuvred to full effect, preparing to launch an assault along the lines of the one suggested above, which will (hopefully) throw the Yankees back. One should use the Rifled Cannons for the long ranged bombardments and the Napoleons and the Howitzers to shield the infantry.

Because the most sensible use of artillery while on the offensive is carried out at long ranges the Confederate should value his Rifled Cannons highly (the Whitworths aren't worth all that much). The Union player, however, should value all his artillery equally, with perhaps a slight leaning to his Napoleons, as these are reasonably good at longer ranges and very, very good in close.

Retire by Prolonge is an empty coin and I'd agree with the designers that it isn't used much. Artillery however is literally invaluable after Seminary Ridge has fallen and if you can master its use before then, Artillery in Terrible Swift Sword should pose no problems.