

Don't split hairs; split times!

Deadly Sharpshooter  
Fort White Cowboy Cavalry Territorial Governor

To paraphrase that old cowboy song, "Where often is heard a disparaging word..." it sometimes makes a feller feel downright guilty when he wants to be a better shooter. Seems as if there is a lot of comment lately disparaging shooters who want to improve their shooting, occasionally get a ribbon or a plaque, and be recognized at local state or regional matches; in short be competitive. It is, after all, just a game, but one that can bring great personal satisfaction as one develops the skill and techniques to excel. With the Firearms Covenant in our saddlebags to limit racegun development, there is still plenty of room to improve how we handle our equipment. However, many of us don't really know how to go about improving our gun handling skills without a lot of trial and error. Taking wrong trails after well-meaning suggestions from Pards, or changing shooting styles to try something new can often be costly if it means new leather, guns, practice time, etc., so the following offers a systematic way to learn.

Do you want to be a better shooter, Bunkie? Most anybody'll tell you that practice don't make perfect unless it's perfect practice. Just throwing lead down range don't make perfect practice. You need to know **what** to improve in order to improve. Keeping track of your total times, or your stage times may help you see **whether** you're improving or not, but that won't tell you **how** to improve. Looking at your split times can help with that. Split times are the times recorded by most good electronic timers on a shot-to-shot basis, and they can tell you a great deal about how you run a stage.

Thinking about switching your shooting style? Split times can help you figure out time-shaving techniques. For instance we will see that the Traditional shooter typically runs his handguns faster than the Duelist. How about a Gunfighter? Or maybe how about deciding to switch from a cross-draw rig to weak side/strong side rig? Split times won't necessarily tell you how to fix those problems, that's the subject of another article. However, understanding your split times can help you see where you need to work. Knowing where you need to work is more than half the battle.

I know I spent a good deal of time at the practice range, trying to go faster, but not paying much attention to where I needed to go faster and where it might even pay to slow down a might. Getting beat by a big bunch of seconds by a friend who is a real fast shooter, was really discouraging. In a ten-stage match, he'd beat me by 'bout half a minute; an impossible gap. Then another friend pointed out that the overall time difference looked huge until you cut it down stage by stage. Turns out that what was needed was to gain 3 to 4 seconds per stage. That seemed do-able. Only thing was to find out where to get those few seconds. That's when I started taking a timer to the practice range and looking at the split times. What those split times told me was a real eye-opener.

For the sake of being consistent in practice, and to make the point more clearly here, most of the results shown below are based on what I'll call a SAD stage (Stand And Deliver), with no movement from gun to gun. Handguns, loaded with 5 each were holstered and rifle, loaded with 10 rounds and shotgun, open and empty, were staged on a table in front of the shooter. The object here was not necessarily to learn how to handle all kinds of stages, so much as to find out

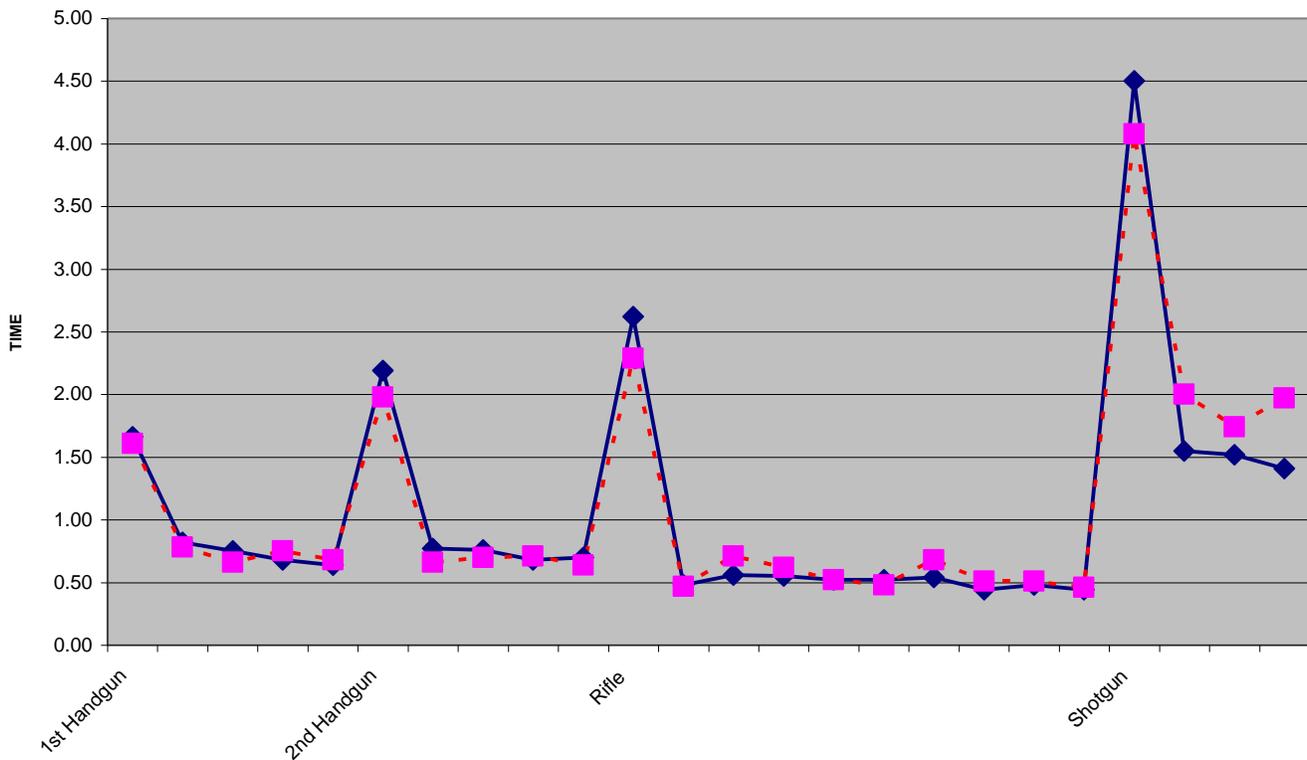


Figure 1. Two consecutive practice runs as a “Stand And Deliver” stage (10 handgun, 10 rifle, and 4 shotgun, in that order; first run, solid line, second run dotted line). Total times were 25.8 and 26.2 seconds, respectively. Targets were SASS recommended 7 yards, about 15” x 15”, and there were five of them. Thus, handguns, rifle and shotgun were all shot at the same targets, sweeping for five with each handgun, pendulum sweeping with the rifle, and the shotgun shot at only the first four targets in a sweep.

where chunks of wasted time could be eliminated. Because I wanted, literally, to “see” where I was wasting time, the split times were graphed.

A quick glance at Figure 1 reveals several things. The good news was the surprising consistency over these two runs. Peers like, good or bad, I was doing it the same way, at least in these two replicates. That validates the exercise, indicating that the results weren’t just a one-time flier. The total times for these two stages were 25.8 and 26.2, respectively. Not too disrespectful, but not match winning times, either. However, the power of this exercise is that it permits visual appreciation of just where a shooter can expect to make some improvements.

The real eye opener, however, was those pointy-lookin’ peaks that showed up every time I went to another gun. Those, Bunkie, are transition times, and even though I had always heard people say that that’s where you can make the most gains, I guess it never sunk in until I saw it visually. Those four transition times totaled 10.97 seconds for the first run and 9.96 seconds for the second. That’s 43 and 38% of the total times of the two runs, respectively! Now I always felt like I was working pretty hard to get off 24 rounds, but according to the graph, I was wasting almost half the time! What’s worse, take a look at the transition time from rifle to shotgun. Now, remember there was no movement involved. Makes you think maybe I was just standing there just admirin’ that gun, don’t it? Truth is, I had been working on a technique where I’d throw a round on the carrier before picking the shotgun up. I’d palm the other three, so’s to be faster, don’t ya see? Never mind that there’s talk of banning that practice, the graph tells it plain.

It wasn't workin' for me. From the graph, it's also clear to me that if I got it in mind to work at shooting faster, making the transitions faster, especially to the shotgun, is the best way to lose those few seconds needed to give my friend a run for his money. The graph illustrates that, while small gains could probably be made by running the guns a bit faster, large chunks of time could be obtained by streamlining the transitions, especially from rifle to shotgun. That's the value of using split times as a learning tool; you can really "see" the places where you're wasting time.

Now look at the times in the valleys, between the transitions. These are the split times indicating how fast the shooter is running each gun. The split times for each handgun are not too bad, considering that they're being shot one-handed. The average split times (not counting transition times) for instance, were about 0.72 for the first and second handgun in replicate 1, respectively and 0.70 for the first and second handgun in replicate 2, respectively). Split times for the rifle were 0.50 and 0.55 for 1<sup>st</sup> and 2<sup>nd</sup> replicates, respectively, and split times for the shotgun were 1.49 and 1.90 for the 1<sup>st</sup> and 2<sup>nd</sup> replicates, respectively. Gains in speed running either the handguns or the rifle would likely be small, but the shotgun seemed to offer lots of room for improvement.

Here's another advantage of this kind of practice technique. Once you can see how you're shooting, you can set a goal, say faster split times, and figure out how much that would help you. For instance, if I could improve the handgun and rifle split times by just one tenth of a second faster, total stage times would theoretically improve by only 2 seconds. Now, I hear you saying that many matches are won by smaller margins than that. True enough, but I needed 3 to 4 seconds. Besides, you have to ask whether those faster split times could easily be accomplished without adding misses. Improving transition from rifle to shotgun could theoretically improve total stage time by up to 2 second in one move!

Another example from the data archives compares two styles, duelist vs. traditional, Shooter # 1 vs shooter #2. Shooter #1 is a good shooter, often winning his category, but shooter # 2 is a top shooter, often in the Top Gun category. The comparison is based on a SAD scenario, handguns first, then rifle, followed by shotgun, 10, 10 and 4, as described above. The interesting thing in this comparison is that the total times for the stage were almost identical for the two shooters, (*26.21 vs 26.27 seconds*; but the patterns were quite different, as can be seen in Figure 2.)

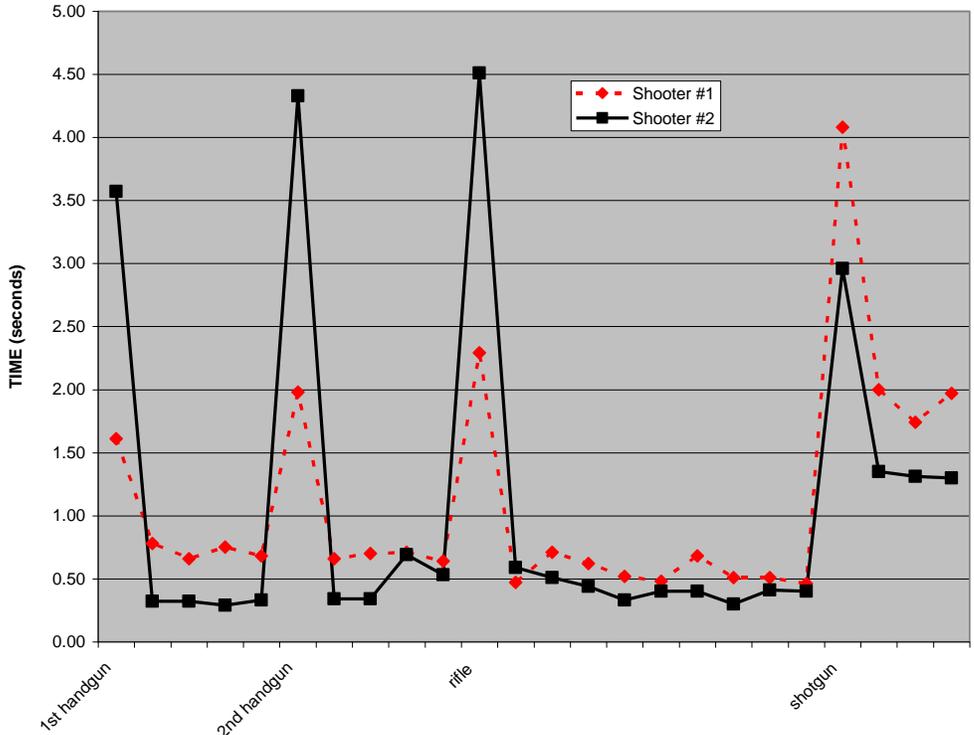


Figure 2. SAD scenario, comparing Shooter # 1 with Shooter # 2 (duelist vs traditional). The overall stage time for Shooter # 1 was essentially the same as shooter # 2, (26.21 vs 26.27 seconds, Shooter # 1 vs Shooter # 2, respectively), but it is obvious Shooter # 2 runs his guns much faster. The difference is in the transitions. (Shooter # 1, dotted line; Shooter # 2, solid line).

Which of these two is the better shooter? While that may be an unanswerable question, clearly, Shooter # 2 could make the biggest gains in time by cleaning up his transition time from one gun to the next. After looking at this graph, Shooter #1 was uncertain whether or not he'd be able to run the handguns much faster. The same goes for his rifle shooting. Where he'll spend practice time is on the shotgun.

Compare just transition times between Shooter # 1 and Shooter # 2 (Table 1). Shooter # 1 beat Shooter # 2, literally to the draw, with both handguns and his rifle, slowing down only with the shotgun. Transition times and split times with the shotgun for Shooter # 1 were downright torpid compared with Shooter #2. The total transition times differed between these two shooters by over 5 seconds, yet the total stage time was identical. Shooter#2 has a good chance to speed up his transition times and leave Shooter#1 behind!

Table 1. Transition times (seconds) for Shooter # 1 and Shooter # 2.

	1st hand gun	2nd hand gun	rifle	shot gun	Total transition time
<b>Shooter # 1</b>	1.61	1.98	2.29	4.08	10.0

<b>Shooter # 2</b>	3.57	4.33	4.51	2.96	15.4
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Thus, you can see the value of using split times to learn where improvements are needed, and guide you to more focused training. The numbers are pretty honest, and indicate clearly where gains in speed can best be made. Split times can also help you monitor progress, or to assess new techniques. And, Pard, this is all in the Spirit of the Game, honest competition based on simply knowing where you're being fast and where you're being slow. Keeping track of split times really opened this cowboy's eyes. They can do the same for you.