SCORING TECH

THE BILL DRILL GUNFIGHT

A note for firearms training leads and command staff, from Scoring Tech

Instructors know the Bill Drill: six shots at seven yards, fired as fast as the shooter can keep them in an 8-inch circle or a USPSA A-zone. A world-class time from the holster is around 2.00 seconds. Most instructors can tell you why that matters. It is harder to explain to someone who only sees whether the officer passed the qual.

A companion to How fast a gunfight actually goes, a short letter with the timing data behind the suspect numbers used here.

So here is a way to show it. Run a Bill Drill with a suspect shooting back, and put the clock on both sides.

The suspect

Assume a suspect who means to hurt someone and has little training. At seven yards he starts the fight, so he gets the first shot. He shoots about as fast as he can pull the trigger, and he misses a lot. We use these numbers:

	First shot	Between shots	Hit rate
Suspect	1.00 s	0.25 s	20%

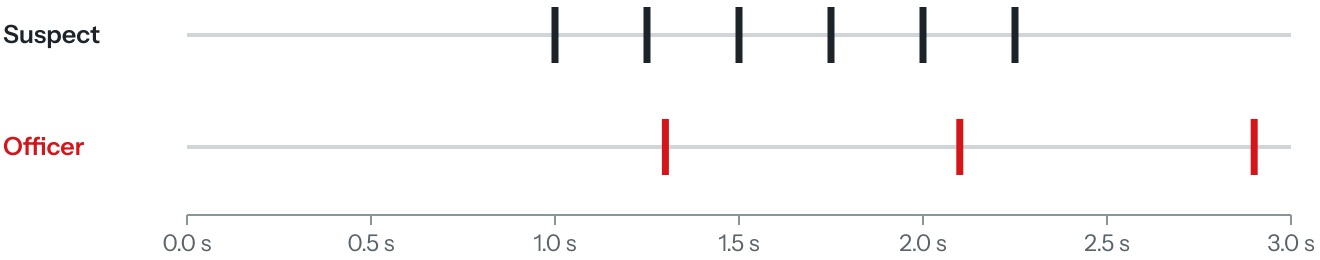
The 20 percent hit rate is an assumption for this exercise, not a measured figure. Change it and the picture changes with it. The 0.25 second spacing matches the Force Science timing work we cite in the letter. In Force Science's tests, suspects fired about 0.38 seconds after the gun first moved, starting with the gun in hand and not raised, so the 1.00 second first shot here is deliberately much slower.

An officer trained to the qual

This officer passes the FBI course, and his training is geared to have him pass, no more. At seven yards that is about five rounds in four seconds from the holster: a one-second draw and first shot, then 0.80 seconds between shots. We give him 85 percent hits, which is generous for the course. He also needs about 0.3 seconds to see the threat and decide before his hands move.

	Process	First shot	Between shots	Hit rate
Officer	0.30 s	1.00 s after	0.80 s	85%

A. Officer trained to the qual



His first shot lands at 1.30 seconds. By then the suspect has fired twice. By the time the officer's second shot goes at 2.10, the suspect has fired five times. Five shots at 20 percent is one expected hit, and about a two-in-three chance of at least one. The suspect has essentially finished his Bill Drill before the officer has fired a third round.

A hit from a handgun may not be fatal, and body armor helps. It is still a hit on the officer, and every missed round goes somewhere else in the room, the street or the next apartment. The suspect is not thinking about his backstop.

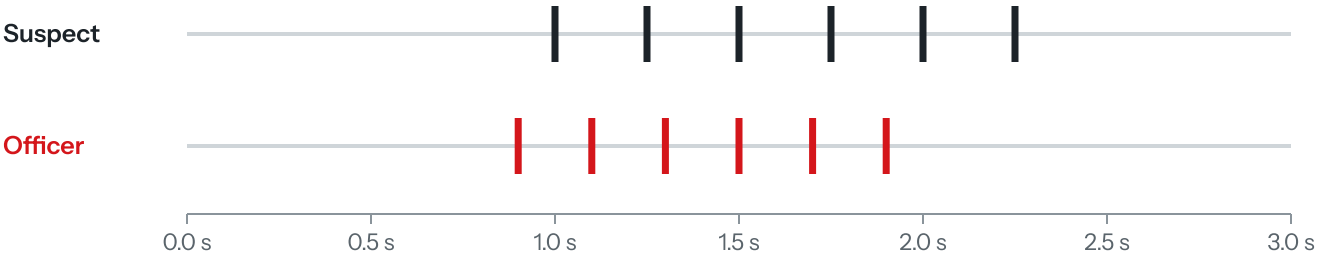
The officer passed. The result is still not what anyone wants.

An officer trained to a clock

Now give the officer training that uses a shot timer every session. Same 85 percent hits, same 0.30 seconds to process, but a 0.60 second first shot and 0.20 seconds between shots. These are numbers a unit can reach with regular timed practice.

	Process	First shot	Between shots	Hit rate
Officer	0.30 s	0.60 s after	0.20 s	85%

B. Officer trained for speed and hits



The officer fires first, at 0.90 seconds. He fires all six rounds by 1.90 seconds, which is about 5 expected hits on the suspect. In that time the suspect has fired four rounds, so about 0.8 expected hits, and the officer's first two hits are in before the suspect's second shot. The suspect still has to stop at some point, and nothing here promises he does. It simply shows the officer is no longer behind.

What this means for training

Both officers shot the same accuracy. The only difference is time. A qual that counts hits and gives four seconds to get them cannot tell these two officers apart, and a leader looking at the pass rate cannot see the difference either. The second officer got there because someone timed his first shot and his splits, and trained them.

The simple version of this check is to time it. Run your officers through a six-shot string at seven yards from your holster, record first shot and splits, and see where they land against the two officers above.

Note: You do not need to change your qual. Don't fight that unless you decide it is possible and absolutely needed. Instead, add timed assessments, and use those as inputs to training. You'll find officers trained that way easily pass the qual, so it is a win on the qual and a big win for officer survivability.

If you want help setting that up, call or email. We like talking about this.

Thanks for reading!

Ken Nelson
CEO, ScoringTech

435-429-1703 · sales@scoringtech.com
Mon to Fri, 8am to 5pm MT. You'll speak with our CEO, LEO Liaison, or DoD Liaison.

This is a model, not a prediction. Times and hit rates are assumptions chosen to illustrate the effect of timing; the suspect hit rate (20%) is not measured data. Expected hits are shots fired times hit rate. The suspect is assumed to keep firing at a steady 0.25 seconds. Suspect timing of 0.25 seconds between shots: Lewinski and Redmann (2009), Force Science. Suspect first shot of about 0.38 seconds: Force Science (2011). FBI course standard as described by the instructor, not independently checked here.