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Editor's note: If you haven't yet taken the bleeding control survey being conducted by Dr. Matt Sztajnkrycer, a Force Science Certification Course instructor, Minnesota SWAT doc, and Mayo Clinic researcher and Det. John Landry of the Hillsboro Beach (FL) PD, as discussed in the last FSN transmission, you're encouraged to take a few minutes and do so at: **www.surveymonkey.com/s/LMFMG6R**

All questions are easy to answer and participation is anonymous. The survey aims ultimately to save officer lives by better understanding the methods and need for bleeding control in law enforcement circumstances. Your participation is *greatly appreciated*.

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I. Doubts raised about certain reaction-time training exercises

Are some training exercises that focus on reaction time unintentionally compromising officer safety on the street?

Two instructors raised that concern recently in separate presentations at the annual conference of the International Law Enforcement Educators & Trainers Assn. (ILEETA).

Larry Hahn, a certified Force Science Analyst, told of detecting what seem to be unnaturally slow draws by suspects in some simulator scenarios--intended, perhaps, to give trainees a better chance of "winning" in video confrontations.

Duane Wolfe, a law enforcement instructor at the Alexandria (MN) Technical College, reported on research he has conducted that challenges the wisdom of the commonly taught tactic of moving forcefully toward an adversary's gun in a close-quarters encounter as the fastest way to control the deadly threat.

In interviews with *Force Science News*, Hahn and Wolfe described their findings in detail and explained why they fear that some of today's police training may, in fact, be placing officers in jeopardy because it ignores the scientific truths of real-world time and motion.

Hahn: Slow draws are building dangerous false confidence

Hahn, an independent trainer who's a retired sergeant from the Waterloo (IA) PD, says his interest in reality-checking simulator scenarios germinated after he attended a deadly force instructors' course where participants were required to script and film a threatening encounter for use on a firearms training simulator.

"I was playing the bad guy and I drew a gun from my waistband, pointed it at the camera, and fired as fast as I could," he recalls. "Other trainers in the group kept telling me to slow down. 'Don't do it so fast,' they said. 'You've gotta give the officer a chance.' They wanted to be sure that the officer facing the threat in the simulator was able to defeat the suspect and 'win.' They were caught up in the training mode of wanting to 'help' their students.

"That bothered me, because the scenario we ended up with wasn't acted out at the speed of a real gunfight. Any confidence officers gained from 'winning' would be false confidence."

Back home, he put a timer to the shooting scenarios that came with the simulator used at the technical college academy where he was employed.

Based on Force Science studies, he knew that the average subject with his hand already on a gun tucked in his waistband can draw and fire in about one-quarter of a second. Yet in many of the scenarios he reviewed, the timing was significantly slower.

"In one scenario," he says, "for the suspect to grab the gun from his front waistband, point, and fire took 1.15 seconds. In another, it was 1.13 seconds. In still another, 1.21--and so on. The timings ranged from .98 seconds to 1.98. Most were 3 to 5 times slower than reality. And this did not include the additional time it took for the suspect to move toward and actually touch the weapon before drawing."

In most of those scenarios, "the officer in training should have had his or her firearm out and pointed at the threat," Hahn says. "Considering the slowness of the assailant's draw, the officer would have been able consistently to defeat his adversary."

Overall, Hahn estimates that of the shooting scenarios he has timed, upward of 25-30% feature "assailant actions that do not fit the speed of attack demonstrated in Force Science studies." Once you're familiar with the true speed of an assault, he says, "the unnatural speeds in misguided videos become obvious."

After his discovery, Hahn eliminated the invalid scenarios from his training repertoire.

In his opinion, building officers' confidence through slowed movement is a dangerous disservice. "Officers need to practice reacting and shooting at the speed of a gunfight," he says. "When false confidence is shattered by reality, it can drive an officer into a panic reaction rather than a trained response."

He quotes Chief Jeff Chudwin, president of the Illinois Tactical Officers' Assn.: "Unrealistic training leads to unrealistic expectations, and unrealistic expectations are deadly on the street."

Yes, Hahn concedes, officers may 'lose' in some simulator scenarios if suspect actions are timed accurately. "But you need to experience that empty-gut feeling. When you realize how fast real-life attacks occur, it reinforces the importance of getting your brain in gear

from the beginning and paying more attention to good approach tactics and to reading danger cues.

"What goes on *before* you have to draw your gun is likely to be what matters most in the real world. The emphasis should be placed on the precursors of an attack, not the draw."

Wolfe: By lunging forward, you're likely charging into a bullet

Duane Wolfe used Force Science's draw-and-fire timings to evaluate a close-quarters tactic that's a staple of many training programs. That's the concept that says if you're within 5 to 6 feet of a suspect who starts to draw a gun on you, you won't have time to draw your own weapon to abort his attack, so your best option is to immediately move in and block or deflect his firearm, ideally before he can shoot.

"It's important to know what to do in that circumstance," Wolfe says, "because the majority of officers fatally shot are killed at a distance of 5 feet or less." But the more Wolfe thought about the mental/physical process of reacting to a sudden threat, the more he questioned whether lunging toward an assailant's gun is really the best technique to instruct..."or are we just teaching officers to charge into an oncoming bullet?"

Last fall he set up a time-and-motion study to find out.

One at a time, he had about 100 law enforcement students from his firearms class, males and females at various levels of fitness, start from an interview position with hands at about chest level and move forward on a beep signal as fast as they could and strike a PACT timer. In sequence, they covered distances of 3, 4, 5, and 6 feet.

Wolfe considered this the rough equivalent of an officer going for an assailant's gun from those gaps. However, as he points out, the tests could not reflect whether a deflection/disarming attempt would actually be successful.

The results came out this way:

	3 feet	4 feet	5 feet	6 feet
Average time	0.73 seconds	0.90 seconds	1.02 seconds	1.12 seconds
Fastest time	0.57 seconds	0.76 seconds	0.85 seconds	0.81 seconds

Wolfe then compared these figures with findings from a Force Science study in which participants started with their hand on a pistol in their waistband, drew, and fired 1 blank round. Two positions were studied: the Combat Tuck, with the gun arm only extended from where the elbow is held next to the waist, and the Extended, with the arm coming to a full extension before firing. Force Science has reported those results as:

	Average Time	Fastest Time
Combat Tuck Position	0.23 seconds	0.09 seconds
Extended Position	0.26 seconds	0.09 seconds

In reporting his findings on PoliceOne.com, Wolfe wrote: "If you were to take that speed of 0.23 for the Combat Tuck and double it to 0.46 to account for the hand-to-gun motion, you will see that even the fastest participant closing in to stop the gun would be shot before

making contact to deflect or disarm the subject's weapon.... [I]f we tripled the time for the drawing action to 0.69 only the fastest of the participants...would have a chance of completing a deflection or disarm and only at a distance of 3 feet or less."

"Some officers and trainers argue that they've successfully done weapon deflections and disarms numerous times in training," Wolfe told *Force Science News*, "but that's different from doing them on the street in real-life confrontations."

He explains by referencing the well-known OODA Loop concept--the process of reacting to a stimulus by Observing, Orienting (interpreting what's happening), Deciding (on how to respond), and Acting.

In a training environment, the natural OODA Loop process is shortened because "you already know that your partner is going to draw a gun and you have already practiced your response," Wolfe says. "There's no need to interpret the suspect's actions because you know what to expect." Wolfe calls that "Training Clairvoyance," and it gives a trainee a significant timing advantage.

On the street, an officer is at an OODA Loop *dis*advantage. A suspect who starts to draw a gun has already moved through his first 3 OODA steps; he's initiating Step 4. But at that moment, the officer, at best, is at Step 1. If the lagging officer moves forward to rush the subject, Wolfe says, he'll likely be charging into a bullet.

Wolfe suggests that what may work better, especially at distances of 4 feet or more, is for the officer to rapidly move laterally in an effort to escape the line of fire and make himself a moving target. Ideally, this will disrupt the suspect's attention and aim--and force him back to Step 1 in his OODA process--while the officer draws and fires from a new position. The officer may still get shot, Wolfe concedes, but he probably reduces his risk of being hit multiple times.

In the future, Wolfe hopes to conduct time-and-motion studies on lateral movement in these circumstances to better illuminate this option.

Meanwhile, Wolfe has integrated lateral-movement drills into his own teaching. The desirability of that option, he believes, depends on the distance involved. "Inside of 3 feet, it may still be more efficient to move into the suspect," he says, "even with the risks involved."

It's tough to make hard-and-fast rules based on averages, he says. "You and the suspect may be faster or slower than the average. You won't know until you're in the fight. If you move into the suspect who is attempting to draw and shoot you, you are betting your life that you will be faster. Move laterally and you're betting your life you'll be a harder target. Either way, the stakes are high."

Like Hahn, he emphasizes sharpening threat-assessment and observation skills to better pick up on pre-attack behavioral cues and thereby quicken your anticipation and reaction time. During his ILEETA presentation, he asked his audience how many currently conduct training on visually detecting concealed weapons on suspects.

"Only about 10% raised their hand," Wolfe says. "That's scary. To not offer that training is a really serious deficiency."

Dr. Bill Lewinski, executive director of the Force Science Institute, comments:

Both Larry Hahn and Duane Wolfe are absolutely correct that officers are not prepared for real-world encounters IF the only training they have had is unrealistically slow. Slow training where officers win all the time can be a great confidence booster as they begin to build their skills. But if officers are not ultimately prepared for the type and speed of the challenges they may face in the real world, their training was not sufficient.

However, officers should not be put in scenarios they can never win just to beat them up or give them a mere taste of a realistic street encounter. But showing them that the speed of the assailant may, in some situations, be faster than the officer can be helpful in teaching the reality of street. Conducted correctly, this can motivate officers to do additional training on their own and it can motivate trainers to develop and test--as Larry and Duane have done--tactics that may stand a better chance of helping officers succeed.

As we move forward with trying to build officers' fundamental skills to a speedy and automatic level, we must remember that the ultimate tenets of officer safety are, where possible, thorough preparation, pre-event and on-going assessment, and thoughtful use of strategy and good tactics rather than just a really fast draw.

We then need to take training one step further.

Besides developing outstanding performance skills, good athletes have honed the ability to know when, where, and how the "play" is going to unfold. In some games, such as professional baseball and tennis, the ball travels so fast that the athlete doesn't have a chance to react unless he or she is reading and strategizing as the opponents are beginning to engage in their throw or swing.

Further, the good athlete knows that at certain points in a game, with a particular opponent, some plays have a higher probability of occurring than others, thus helping the player prepare for the plays that have the best likelihood of occurring.

We need the creative resources of trainers like Larry and Duane to take police officers to very high skill level. We also need to start thoroughly studying and analyzing the tactics and strategies of a potential assailant so we can help officers develop pre-event assessment skills. We can then help them really understand and prepare for all the phases of the potential conflict - from detecting potential threat cues to effectively suppressing the threat.

Duane Wolfe's report on his study for PoliceOne, including comments from trainers and officers, can be accessed by clicking here

II. New free site offers case-by-case details of Taser court decisions

A valuable new resource for police attorneys, use-of-force trainers, administrators, street officers, and others affected by Taser case law has been created by Americans for Effective Law Enforcement (AELE), the nonprofit that monitors and reports on police-related litigation.

At **www.aele.org/law/Digests/ECWcases.html** you can access full details of more than 150 court cases involving electronic control weapons, free of charge. This unique database

will be updated at least monthly as new cases are ruled on, according to Wayne Schmidt, AELE's executive director.

"Taser use, misuse, and ECW litigation are the hottest topics in law enforcement today," Schmidt says. "No other organization has addressed the legal aspects of ECW use so thoroughly."

At the site, relevant federal and state court decisions are organized by federal circuit and sub-categorized according to the type of ECW deployment involved: dart mode, stun mode, and corrections/confinement. A succinct description summarizes each case and there's a link that will bring you the full text of each decision.

There are also links to articles, research papers, specimen policies, ECW terminology, and a list of so-called "weapon-confusion" cases.

"Our goal is to help agency lawyers, police chiefs and sheriffs, instructors, and officers easily navigate the many cases that legally affect their actions, as well as advise them of decisions in other circuits that could influence the future direction of the law in their own jurisdictions," Schmidt says.