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"Looming": Important consideration when cops fire at moving cars

Training note: Congratulations to the 77 graduates of the most recent Force Science Certification Course, conducted last week in Las Vegas, who proudly represented 45 agencies from 17 states/provinces. Well done! Also a big thank you to the members of the Advanced Training Unit at Las Vegas Metro Police Department for being excellent hosts. We look forward to our return to Vegas next December. To reserve a seat in that or other upcoming 2013 Certification Courses visit www.forcescience.org/2013certification.pdf or [CLICK HERE](#) for full details on the program.

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I. "Looming": Important consideration when cops fire at moving cars

Skepticism often arises when officers shoot at vehicles they claim were about to run them over. Questions range from "Why didn't the cop just jump out of the way?" to "How come his estimate of the car's speed is so much higher than that of other witnesses at the scene?"

The answers may lie with a perceptual phenomenon called "looming."

This quirk of the mind is now explained in detail in the Force Science certification course and was touched on recently by Dr. Bill Lewinski, executive director of the Force Science

Institute, during a presentation on research findings relevant to law enforcement at the annual conference of the Illinois Homicide Investigators Assn.

Looming, Lewinski told the conference's 500 attendees, is an illusion that occurs when a person (an officer in this context) is standing in the path of an approaching vehicle. Each time the gap between the officer and the oncoming car closes by half, the space occupied by the image of the vehicle in the officer's visual field roughly doubles.

"This exponential enhancement--a seemingly explosive rate of growth--is well documented in scientific literature," says Chris Lawrence, the Force Science instructor who teaches looming in the certification course. An officer-safety faculty member at one of North America's largest police training facilities, Lawrence has measured the effect in his own experiments with camera images.

"Because the vehicle appears to be growing dramatically in size, it may seem to be coming at a faster speed than it actually is," Lawrence explains. "The targeted officer may falsely sense that he or she has no time to leap clear, and start shooting instead. Officers are conditioned in training to resort to their firearm in the face of what appears to be an imminent lethal threat.

"Later when the officer reports that the vehicle was bearing down at an inescapable speed, problems may arise. That's because witnesses who are viewing the vehicle from the side won't experience the looming effect. The car will remain essentially the same size as it crosses their visual field, and they'll tend to judge its speed differently. That discrepancy may make the victim officer appear to be lying to justify his use of deadly force."

Details of how looming works get complicated, but the basic phenomenon is important for investigators to know about, Lewinski says, and to be able to articulate in court and before review boards.

Lawrence reports that he and Lewinski currently are working on the best way to demonstrate the phenomenon to triers of fact. The result, Lawrence says, "should help officers in certain controversial encounters where they've shot at vehicles moving toward them."

II. New survey: Vest wear up, but care problems a potential threat

More agencies are mandating body armor and more officers are wearing it, but certain deficiencies in vest training may still be hampering the best possible ballistic protection, according to a new survey by the Police Executive Research Forum.

PERF polled a representative national sample of 1,000 sworn officers and found that more than 92% are now required to wear armor, either "at all times when on duty" (57%)

or "at most times" (35.3%). Nearly 75% of the officers said they their agencies back the decree with written policy.

These figures show significant improvement over a PERF survey three years ago, which showed that only 59% of agencies required officers to wear armor "at least some of the time" on duty. Only 45% of departments at that time had written policies on armor wear.

Officers said they adhered to the requirement either all the time (87.9%) or "most" of the time (11.4%). Even though 73% said they had never been shot at or involved in other situations in which armor actually protected them from injury, the overwhelming majority regards it as "critical for safety," the survey recorded.

More than two-thirds of the officers (68.7%) estimated that adherence to vest policy on their shift is 100%, while another 27.9% judged compliance at 76% to 99%.

Although noting that "officers did not believe that failing to wear body armor, even repeatedly, would result in particularly severe discipline," PERF states: "[P]olicies are effective and should be maintained by agencies that have them, strengthened in agencies that currently have weak policies, and considered by agencies that lack them."

A cautionary note: "[S]ignificant numbers of officers" do not understand or do not always adhere to vest care and maintenance recommendations, PERF discovered. For instance:

Nearly two-thirds "did not know that moisture can reduce the ballistic protection of body armor."

Over 57% most commonly store their armor by hanging it on a regular clothes hanger, despite the fact that manufacturers advise laying it flat or placing it on specially designed hangers when not in use. (Improper hanging "can wear out the straps,...allowing the ballistic material to move around..., possibly leaving certain areas of the body at risk," PERF explains.)

"These findings point to a need for further training and education of officers," PERF says. Since more than half the officers keep their vests in their lockers when off duty, departments should ensure that lockers are designed to accommodated proper storage, the study advises.

Finally, "51% of officers stated that body armor is not available for immediate replacement, should theirs be damaged or lost," PERF noted. It suggests that departments "maintain a limited inventory...in various sizes, rather than requiring officers to wait for long periods...without armor."

Full details of the survey can be accessed without charge by [CLICKING HERE](#).

III. "Heroes": Powerful new film of life and death on the thin blue line

Texas has become the first state to mandate for all academy classes the screening of a powerful new film that honors fallen LEOs and reinforces tactical awareness in those still on patrol.

The 90-minute documentary, "Heroes Behind the Badge," produced by Bill Erfurth, a 26-year street veteran of Miami-Dade PD, features three gripping re-creations of incidents in which officers were murdered in the line of duty and three other high-profile cases of near death and survival.

The film is currently being screened around the country after premiering to enthusiastic buzz at the IACP's annual conference last October. Last month, Erfurth says, the Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE) notified him that it will be including "Heroes" in its recruit curriculum statewide--the first of what he hopes will become a trend.

Erfurth, who started working Miami's mean streets on patrol and undercover during the city's violent and chaotic "cocaine cowboy" era, told Force Science News that the slayings of four police friends during his first five years on the job spurred his determination to film a documentary that would "open the eyes of the general public to the sacrifice of law officers. I wanted it to be real, raw, and powerful--not for Hollywood and not sugar coated."

During his police career, he gained insights into the film business through part-time work with professional TV and movie producers, including Jerry Bruckheimer, late of "CSI" fame. After he retired as a lieutenant about five years ago, Erfurth formed his own production company in Ft. Lauderdale, Modern City Entertainment, and joined with the National Law Enforcement Officers Memorial to create "Heroes." The final cut was crafted from 40 hours of footage.

The film delivers its message with one memorable image after another: an Ohio sheriff breaking down as he tells of a female deputy murdered in a trailer park on a shots-fired call...a Wisconsin officer showing fragments of a rifle bullet surgically removed from his body after a shootout with a sex offender...a chief in Arkansas describing the moment he responded to a shooting and came upon his officer son lying dead on a highway...a teenager fingering his murdered mother's badge and talking about how he wants to be "a cop like her" to take bad guys off the street...a small boy recalling how an officer he didn't know bought him a cookie at McDonald's and moments later was fatally shot in the head as he sat at a traffic light.

"Not even the most cynical cop or the most callused civilian can walk away without being moved by these stories," Erfurth says. "Every time 'Heroes' is shown, more and more people step up to champion it in different ways. One woman in Ohio has mounted a personal campaign to get it shown in every high school in the country.

"Officers who've seen it have told me it caused them to rethink how they behave on the job, from being less complacent to revising their tactics after witnessing the circumstances in which officers died."

Erfurth has been invited to screen "Heroes" at the ILEETA training conference next spring, and the movie is currently played at some "Below 100" presentations.

To access more information, including scheduled screenings and a trailer, visit: <http://www.heroesbehindthebadge.com>.

DVD and Blu-ray copies can be purchased through the National Law Enforcement Officers Memorial Fund, which receives half of the net proceeds. **CLICK HERE** to go there.

IV. New stats on the growing threat of rapid mass murder

Ron Borsch, who monitors active killing incidents worldwide, has released his latest statistical summary, indicating that the frequency of these bloody events is continuing to escalate and that the interruption of a suspect's murderous rampage is most likely to be initiated by a single citizen or LEO.

Borsch, manager of the Southeast Area Law Enforcement Regional Training Academy in Bedford, OH, tracks what he terms Rapid Mass Murder (RMM): four or more persons slain within 20 minutes in a public place.

He also tallies attempted RMMs: incidents that would likely have reached the four-victim level had they not been aborted. Attempts, he concedes, are a case-by-case judgment call, determined by the number of persons wounded, the weapons and ammunition the offender had, suicide notes, and/or other evidence suggesting apparent intent.

Among Borsch's findings:

- RMMs are at a record high. From 1975 through the Columbine massacre, "successful" and attempted RMMs in the US and abroad averaged one per year. Post-Columbine through 2010, the yearly average was four. Last year there were eight, and the total for 2012 through Thanksgiving was 9.

- Statistically, the most dangerous months are March (23%) and April (16%), with September and December tied at 11%.

- Schools (pre-school through 12th grade) are target 38% of the time; colleges/universities 17%; and churches/religious facilities 10%.

Intervention occurs to stop the killing in just over half the incidents, Borsch estimates. Of known aborts, two-thirds are accomplished by civilians and one-third by law enforcement.

Citizens for the most part act unarmed, and eight out of 10 times their intervention is initiated by a single actor. "When law enforcement successfully stops RMM," Borsch reports, "the abort is initiated by a solo officer seven out of 10 times."

Borsch has found examples of successful two-officer and three-officer intervention on occasion, but he says he has "never been able to objectively document a case where four or more officers acting together in a formation have been able to stop RMM."

The single most important training take-away, in Borsch's opinion: "Agencies need to emphasize single-officer tactics for responding to active-killer threats and de-emphasize or abandon multiple-officer 'posse' exercises, which still persist as a sacred cow in some jurisdictions."

V. Array of free legal info available at "one-stop" website

If you were unable to attend the latest annual conference of the International Assn. of Chiefs of Police but want a thorough briefing on issues discussed there in the group's Legal Officers Section, check the special postings by Americans for Effective Law Enforcement at: www.aele.org/los2012.html .

Among the multitude of conference papers, outlines, and presentations collected at this one-stop location for free legal information are resources related to agency liability ("How to Protect More with Less"), law enforcement and the mentally ill, navigating the legal challenges and pitfalls of social media, police psychological evaluations, a Supreme Court update, and much more.

The site also provides links to law- and force-related articles from the FBI Law Enforcement Bulletin, The Police Chief magazine, FLETC's Legal Division, the Public Agency Training Council's Legal & Liability Risk Management Institute, Force Science News' archive, and other sources.

VI. Quotable quote

The acidic cultural critic Tom Wolfe on the typical civilian cell phone video of police using force:

"And what does the world see in this video? Where does the YouTube story begin?... [N]othing on YouTube could possibly let [the public] know the first half of the story, the crucial half...Nothing! And without that first half, the second half becomes fiction! A lie!"