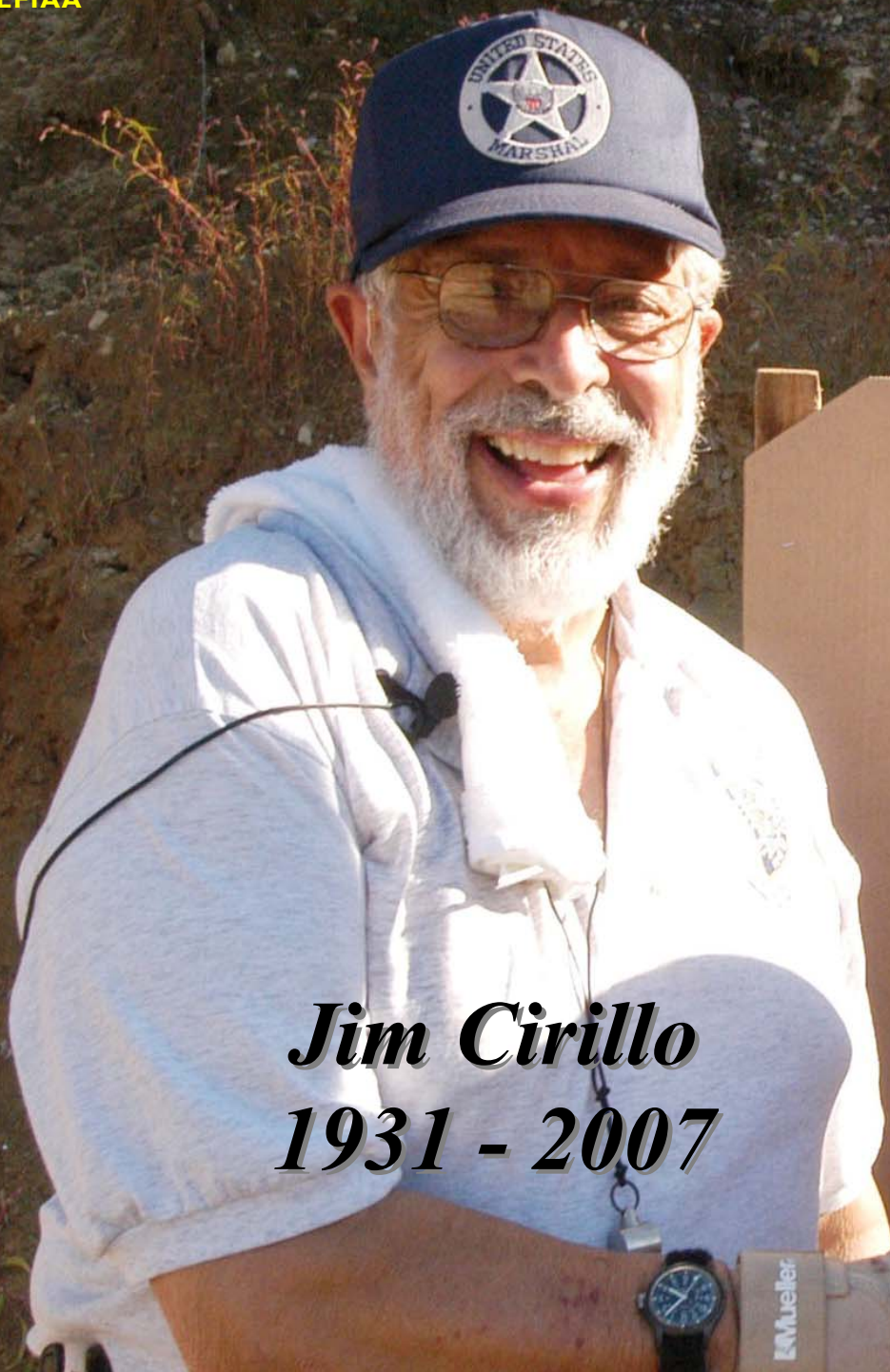


The Case Head

The Official Publication of the Massachusetts Law Enforcement
Firearms Instructors & Armorers Association

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FALL 2007



Jim Cirillo
1931 - 2007

2007 FIREARMS INSTRUCTOR DEVELOPMENT CONFERENCE
Devens Conference Center / Harvard Sportsman's Club
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The Case Head

The official publication of the
Massachusetts Law Enforcement Firearms Instructors & Armorers Association
P.O. Box 253, Princeton, MA 01541-0253

MISSION STATEMENT

The Massachusetts Law Enforcement Firearms Instructors' & Armorers' Association was formed to promote professionalism, continuing education, improvement in training methods and techniques of the proper law enforcement use of firearms in the Commonwealth of Massachusetts.

The Association strives to promote and foster mutual cooperation between instructors. Through discussion and a common interest in law enforcement firearms training, officer survival and tactical skills, MLEFIAA hopes to keep the members at the forefront of firearms training. Through our monthly meetings and annual training conference, we provide a means for the exchange of ideas and information regarding law enforcement firearms training, training methods, educational activities and new firearms technologies.

MLEFIAA currently has over 400 members. While mainly from Massachusetts, our membership extends internationally to countries as far away as Sweden. The Association endeavors to secure new members from the law enforcement training community who are engaged in the field of firearms training, maintenance, education or related fields. Our goal is to continuously upgrade the level of firearms training of law enforcement personnel here in the Commonwealth of Massachusetts.

MEMBERSHIP INFORMATION

Membership is offered at two levels - Active & Associate. Active membership is open to all duly sworn law enforcement officers of any local, county, state, federal or specialized law enforcement agency within the Commonwealth of Massachusetts; whose official duties include the training of law enforcement personnel in the proper use of firearms; or whose duties involve the maintenance and repair of firearms for their respective agencies.

Associate membership is open to sworn law enforcement firearms instructors and armorers from agencies outside of the Commonwealth of Massachusetts, non-sworn firearms instructors & armorers working within an agency within the Commonwealth of Massachusetts and representatives of private industry who are engaged in the design, development, manufacture, or training in firearms, ammunition and other related technologies designed for law enforcement use.

Complete details can be found at our website: www.MLEFIAA.org

Articles & Letters to the Editor

Articles and letters should be no more than 1000 words in length and submitted in MS Word. Any photos should be in JPEG format. MLEFIAA encourages a healthy discussion of training issues but we require that you keep it level headed and respect opposing views. You do not have to agree, but we will not publish articles that are inflammatory or otherwise do not uphold the reputation of this Association.

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Don't Let Your Firearms Training Stagnate

Is your firearms training program stagnant? Do you train or do you just run a glorified qualification program? Far too many instructors fall into this rut when faced with shrinking budgets and department brass that put training lower and lower on the priority list each. You have probably seen it first hand – the finance committee approves new carpet for the station but you can't get any money to pay for range training. Instructors get tired of fighting city hall or get slapped down one too many times for asking for training money and just give up. If the brass is happy with going to the range once a year to shoot a 50 round "qualification" course – so be it.

Law enforcement has evolved in many way over the past century but a few things remain the same. Today our duty belts resemble Batman's utility belt. We carry tools that represent several levels of the Force Continuum. A police department that takes officer safety half way seriously issues or permits a minimum of duty handgun, OC, baton, cuffs, radio, flashlight(s), spare magazines, latex gloves and other misc. items. The departments that really take it seriously add back up guns and TASER. Our communities expect their officers to be able to use this equipment properly

and effectively. Training must be effective enough so that officers can use the minimum level of force necessary in every confrontation. Improper or lack of training often leads to officers being unsure of their ability and reverting to a higher force level than necessary.

The community wants their police trained (but often don't want to pay for it). The courts have mandated a certain level of training. The Supreme Court ruled in "Popow v. City of Margate" (476 F. Supp. 1237 / D.N.J. 1979) Margate P.D.'s training was "grossly inadequate". The officer's last firearms training was at the academy 10 years earlier. Any current training he had did not include dim or no light training, moving targets, shoot/no-shoot decision making, shooting in populated areas, or firearms policy and procedures. The result was a significant financial settlement paid by the City. Other areas that the Court has said needed attention in various cases are firearms safety, marksmanship, multiple targets, short time frames, realistic use of cover, verbally challenging the suspects, weapon retention, and others.

Many instructors call their annual qualification "firearms training". Qualification courses are NOT training and according to court rulings will be judged on frequency, content, relevance, standards as well as

the qualifications and certifications of the Instructor. The "Three R's" of training are Recent, Realistic, and Relevant. Practical shooting exercises, also known as combat courses, help meet Supreme Court standards. They do not require a great deal of ammunition or time to set up. I suggest your training officer go to a local International Defensive Pistol Association or I.D.P.A. matches in order to get good ideas to implement into their programs. The significance is that the Court will evaluate the mechanics of your departments training and if it is relevant to your particular duties. Different agencies will have different training needs. In Massachusetts, we have very vague training requirements. The Executive Officer of Public Safety and MPTC have set requirements for recruit training. Veteran officer In Service firearms training run at the academy consists of a few brief "training" courses and the Qualification course. It's merely a rehash of recruit training and a race to get out the door since it is usually held on Friday. This program does NOT meet the standards set by the Supreme Court. This is more incentive to run your own training program.

Hang in there and don't give up. Be persistent without putting your job on the line. No one can fault you for wanting to do the right thing.

Meeting Calendar

Jan 23, 2007
S&W Academy
(Elections)

Feb 27, 2007
Mass. State Police
Logan Airport

Mar 27, 2007
Open

Apr 24, 2007
Lancaster P.D.

May 22, 2007
Open

June 2007
HSC
Instructor Recerts

July & August
No meeting

Sept 25-28
Annual Instructor
Conference
Devens / HSC

Oct 23, 2007
Smith & Wesson
M&P Armorer
School
Springfield, MA

Nov 27, 2007
SIG Arms
Epping, NH
E-Board
nominations

December 2007
No meeting due
to holiday

Jan 22, 2008
Smith & Wesson
E-Board Elections

Watch your E-mail for details

Support your Association by supporting the vendors who come to the Expo - Buy from them!

Jim Cirillo Dies in Auto Accident

Jim Cirillo, well-known gun firearms instructor, police officer and author was killed in a motor vehicle accident with a tractor-trailer unit during the evening of July 12th in Brookfield, NY located next to his home town in West Edmeston. He was 76 years old.

According to Madison Co. deputies, Jim was driving west on Welsh Road around 1900 hours when his vehicle entered Route 8 into the path of an 18-wheel tractor-trailer truck. Witnesses stated they think Jim was trying to make a "U" turn and did not realize there was a truck approaching on Route 8. Apparently Cirillo was alone when the tractor trailer unit struck the left side of his vehicle. Investigators said Cirillo died at the scene. The operator of the truck, was treated for back injuries at St. Elizabeth Medical Center in Utica.

Jim Cirillo's career dates well back into the 60's when he joined the New York City Police Department. He is perhaps most famous for his stint with the Stakeout Squad. This unit was formed to combat a rash of robberies at Mom & Pop bodegas. During this period, Jim had the misfortune to face (and the good fortune to survive) 17 gunfights. His unit logged over 250 armed encounters. When Jim spoke, he spoke from experience. He was a man who had not only seen the elephant, he had looked him in the eye and spit in his face. After retiring from the NYPD, Jim did a stint as a firearms instructor at the Federal Law Enforcement Training Center where

his previous experience served to training federal officers in the realities of a gunfight. Jim Cirillo went well beyond where most firearms instructors normally teach. Many people thought he taught gun fighting. In truth, he taught fighting with your pistol and doing so at a level that would get home for supper in one piece.

As an author, Jim penned two books which belong in the library of every firearms instructor – *Guns, Bullets & Gunfights* and *Lessons & Tales from a Modern Day Gunfighter*. He also produced a number of training videos and inspired many instructors to adopt realistic methods in their programs. These are still available through various internet sources.

Jim also developed a handgun sight system known as the Cirillo Intuitive Sight. The front sight was very similar to the AO Big Dot however the rear had a circular cut out instead of the conventional notch. The circular cutout was open at the top and stepped down so there were effectively two diameters. The larger diameter was highlighted with white paint. The large front sight and transition between the larger and smaller diameters produced a black line which seems to draw the eye to the proper sight alignment. Jim also worked with Crimson Trace to promote their laser grips.

MLEFIAA members will recall that Jim was kind enough to lend his services to



**Jim Cirillo, Master Firearms Instructor
1931 - 2007**

the Association in 2004 when he was a guest instructor at the Annual Instructor Development Conference. Those who were fortunate enough to attend and meet Jim got to see his dedication first hand. Whether on the range or debriefing over an adult beverage at the end of a day at the range, Jim was always eager to pass along what he had learned the hard way.

Residing in West Edmeston, NY with Violet Jimenez, his partner of nine years, Jim never slowed down. He continued to teach, work on new products and enjoy the company of his family. We will all miss Jim but we can take solace in two things – his teachings live on as we pass along what we learned from him and Col. Cooper now has someone to kibitz with on the other side of the Pearly Gates.

Product Review - Daniel Defense® Offset Light Mount

Reviewed by Todd Bailey

While in the process of setting up my Bushmaster M4 for serious social use I went through a number of different tactical light systems before I settled on Brite-Strike Technologies "Blue Dot". The light is bright and has a wide beam width which illuminates more of the situation than most of the competitors. The problem was the Blue Dot is a hand held light and Brite-Strike has not ventured into the weapon mount arena as of yet.

My requirements dictated a mount which was adaptable to a Picatinney rail forend and positioned the light so my thumb could activate the light without shifting my hand from the vertical fore grip. The light needed a Milspec finish, had to be strong and was not going to

fail at the worst possible moment.

Enter Daniel Defense - a new company located in Georgia who is manufacturing top quality rail systems and light mounts. Their Offset Light Mount met all my needs and was reasonably priced.

Constructed of aircraft grade aluminum with a Milspec grade matte finish, the mount is offered in two versions. The difference being in the clamp screw head design. One has a large slotted thumb screw (shown in photo at right) and the other has a hex head cap screw similar to the four used to clamp the light to the mount.

This mount is extremely well constructed. The workmanship is top notch indicative of the care that Daniel Defense puts into their product line. Everything fits together like a Swiss watch. Unlike

some mounts on the market, there is no slop when this one is mounted on your M4's Picatinney rail.

Most mounts place the light alongside (Continued on the next page) the rifle's barrel. The disadvantage to this location is a shadow is cast by the forend and barrel which can mask a threat. Daniel Defense's mount offsets the light below the barrel axis so the shadow is cast up toward the



Accidental Discharges - Are They Accidental?

If any of you CASE HEAD readers also subscribe to Police One and receive their email updates, you probably saw an article titled Preventing Accidental Discharge During Close Quarters Contact back in early May. The case in point was an incident in San Jose, CA which was highlighted in a Mercury News article by Rodney Foo.

During a pizza delivery sting operation, Officer Geeno Gular "was shot by a fellow officer whose gun discharged accidentally during the alleged pizza robbery attempt. The officer was slightly injured." The police department did not disclose how the officer's gun when off by accident.

The Police One article describes involuntary muscle contractions, fatigue, lack of attention and other reasons why the weapon discharged. We all know that a modern firearm in good working order fires only when the trigger is pressed. This is why we preach (ad nauseum) to keep your finger off the trigger until you are on target, have made the decision to fire and are sure of what is behind the target.

The article correctly points out that if you are startled, bumped or jostled and your finger is on the trigger, it

could press the trigger and fire the weapon. We clearly need to continue to emphasize keeping the finger off the trigger.

MLEFIAA member and noted trainer Ralph Mroz is states in the article the biggest mistake people make is that they get out of the car and point the gun at the suspect. He says, "You may wind up accidentally shooting someone you weren't intending to fire on or are legally justified to shoot." He is quoted further as saying, "They teach you to search with the muzzle pointed in front of you," he says. "But if you're startled and your finger is on the trigger, the gun may discharge." How true and all the more reason to keep that finger off the trigger.

It is a good idea to revisit the Cardinal Rules of Firearms Safety every time you train your officers. Embed the rules in their subconscious mind.

RULE #1 – ALL GUNS ARE ALWAYS LOADED. Do not take anyone's word for it. Always check yourself. Even if you have ascertained the weapon is not loaded, you will treat it as if it were.

RULE #2 – NEVER LET THE MUZZLE COVER ANYTHING YOU ARE NOT WILLING TO DE-

STROY. If you do not have justification to shoot a suspect – don't point the weapon at them. This is why we teach the low ready position.

RULE #3 – KEEP YOUR FINGER OFF THE TRIGGER UNTIL YOUR SIGHTS ARE ON TARGET. Again, if you are not justified to shoot, your muzzle is not pointed at the target and your finger is OFF the trigger. Off target – off trigger – always.

RULE #4 – BE SURE OF YOUR TARGET. We can also add "and what is beyond your target."

These rules need to be hammered in to our officers from the time they arrive at the academy until the day they retire. Yes, they may get sick of hearing it but the end result is they will eventually keep their finger alongside the frame out of habit. As a side note, it's always interesting for me to watch people who pick up a firearm. Those raised in a rural area who shoot recreationally generally will keep their finger off the trigger without being prompted. The non-shooter who was raised on video games and Hollywood will almost always immediately put their finger on trigger when handed a firearm. (Continued on Page 6)

Product Review - continued from page 3

ceiling. You can also mount the unit up side down to place the light above the bore axis which will put the shadow on the floor when the rifle is in the ready position.

The Offset Mount will accommodate any one inch diameter light or laser. Daniel Defense also has an insert which will let you use a smaller diameter unit in this mount. If you have a light unit that has metric dimensions or 7/8" diameter, this will secure it in the mount like it was made for it. The company makes two versions of this unit. One has the large thumbscrew (PAK) which works well for the user who needs a mount that can be easily dismounted. For a more permanent set up, they

have one which uses to hex head cap screws. It's a little more streamlined.

I've used this mount now for about four months and I like it! It hasn't shot loose, it's rugged and lives up to what a tactical light mount should be. I recommend it strongly.

For more information:

DANIEL DEFENSE, Inc.
6002 Commerce Blvd
Savannah, GA 31408
(866) 554-GUNS
www.danieldefense.com



Daniel Defense, Inc. Offset Mount with a Brite-Strike "Protector"



**Massachusetts Law Enforcement
Firearms Instructors & Armorers Association**

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DEVELOPMENT CONFERENCE
&**

PRODUCT EXPO

Sept 25 - 28, 2007

**Devens Conference Center
Harvard Sportsmans Club**

Member price - \$185 includes

Product Expo and three days of range training

Special 1 Day Classroom Deal - \$50

*Contact MLEFIAA Secretary Joe Picariello
at secretary@MLEFIAA.org for registration information*

6.8mm Remington SPC – Is It For Law Enforcement?

Law Enforcement armament has generally followed the military's lead. The reason for this is two fold. The Department of Defense has deeper pockets and greater resources to test and develop small arms. Secondly, many of our officers use their prior military experience when selecting equipment. Since the First Gulf War, law enforcement has a large number of Reserve or National Guard personnel who have done quite a bit of active duty overseas in combat zones. These numbers have grown even larger as the conflict in Iraq has dragged on causing the Department of Defense to rotate more National Guard and Reserve forces back into combat theaters rather than increase the size of the armed services. The men and women who bravely served there have brought back their experience and first hand knowledge of urban warfare to their civilian law enforcement job.

One aspect of this experience is the less than ideal performance of the 5.56 x 45mm NATO round used in the current series of M16 rifles & carbines. As many readers of this publication know, the history of the AR-16 / M16 is somewhat checkered although it may be more due to the tinkering of Washington bureaucrats rather than a

poor design. Aberdeen Proving Grounds was testing .22 caliber rounds as a replacement for the .30 caliber round as early as 1950. In 1957, Gene Stoner had working prototypes of the AR-15 in .222 Special which later became the .223 Remington. What many seem to forget is that Stoner engineered his rifle and cartridge system to enhance the wounding effect of the .22 caliber cartridge. This was achieved by matching bullet weight and rifling twist rate. As designed, the 55 grain bullet was marginally stable. While it would fly straight and true, it would yaw and tumble upon impact, creating a larger wound channel and more tissue damage than a typical .22 caliber bullet. This is an important fact to remember.

Since the mid 1990's, U.S. law enforcement has been gravitating away from the venerable 12 gauge shotgun and leaning more towards the small caliber semi-automatic carbine/rifle. Popularly known as the "patrol rifle" or "patrol carbine", they have begun to eclipse the shotgun as the general purpose long gun for America's police officer. This concept first began to evolve in several directions. There was a contingent

who favored the submachine gun such as the H&K MP5 or semi automatic carbines in pistol calibers. A key selling point was the interchangeability with the officer's service pistol ammo. The drawback was the ballistics were not much better out of the longer carbine barrel. Another faction favored full sized battle rifles such as the M-14 (M-1A), HK51 or FAL. While these rifles had the range, accuracy and ballistics to deliver lethal hits at 300+ meters, they had a tendency to over penetrate in urban scenarios. The ideal compromise seemed to be the light rifles and carbines chambered in .223 Remington / 5.56mm NATO. To a large extent, the AR-15 family of weapons filled this need with a smaller portion of the market share going to Ruger's Mini-14 and expensive military designs from SIG Arms and other manufacturers.

American law enforcement found the AR-15/M-16/M-4 and the 5.56mm round an ideal combination for the same reasons NATO countries adopted it. It offered superb accuracy, low recoil and was able to incapacitate violent individuals. It also was able to defeat soft body armor – (Continued on next page)

Accidental Discharges - Are They Accidental (continued from Page 4)

The index finger naturally falls on it which makes for a comfortable shooting position.

The article suggests that telling an officer to keep their finger off the trigger is too vague. Maybe I am missing something but "keep your finger off the trigger" seems pretty straight forward to me. I work with the Naval Sea Cadets (a Navy/Coast Guard oriented youth program) in their Small Arms training program. They are briefed thoroughly on the Cardinal Safety Rules prior to the training and then on the range. They get one free pass and if we have to warn them a second time to get that finger off the trigger when off target, they owe the Range Master 25 push ups. We rarely have repeat offend-

ers. In law enforcement, we tell our officers that when their finger is off the trigger, it should be flat along the frame pointing toward the target which is a natural position.

Some experienced trainers advocate positioning the trigger finger in a hooked or "C" position above the trigger opening. This does not give me a warm and fuzzy feeling for several reasons. First it is not a natural position and slightly alters the shooting grip. While the positioning of the finger has it well clear of the trigger, the positioning could result in the finger slipping off the frame onto the trigger because of the direction of pressure. Proponents feel the "C" position does not give an aggressor the advantage of using joint pressure

against you in a weapon take away situation.

The bottom line is there is no such thing as an "accidental" discharge with a modern firearm that is in good working order. There is no excuse for a department to have a service weapon on the street that is not in good working order. The weapon will discharge when someone places their finger on the trigger and presses it to the rear.

Train your officers to keep their finger off trigger. If it makes you feel better, reinvent the wheel and come up with a clever new name for it. Just hammer the Cardinal Rules into them until they do second nature.

6.8mm SPC (continued from previous page)

an attribute made apparent in Los Angeles' BankAmerica robbery.

In urban settings, the fragmenting nature of the 5.56mm round was found to limit over penetration when compared with shotgun slugs, service pistol rounds and full size battle rifle ammo. Tactical teams and other specialized units who performed dynamic entries have found this advantageous.

There has been a great deal of press and speculation about the new 6.8mm SPC (Special Purpose Cartridge) developed jointly by Remington and the U.S. military. Because the greater majority of ammunition in this caliber is being sent overseas, there is little hands on experience by the rank and file in law enforcement which means we often have more questions than answers. Recent combat operations in Iraq and Afghanistan have highlighted the shortfalls of the 5.56mm round in military operations. Generally the round was found to have performance problems resulting in failures to rapidly incapacitate enemy troops. Cited is the alleged poor performance of the 20+ year old SS109 (M855) 62 grain FMJ round. The M855 was designed to improve the ballistics of the 55 grain round fired by the M16 and M16-A1. Numerous sources report the performance of the M855 62 grain round as variable at best. Performance varies depending on yaw, fragmentation and penetration depth due to dif-

ferences in the construction of the individual bullet manufacturers. These same sources cite some lots of ammo traveling more than 7 inches before yawing or fragmenting. The yawing action and fragmentation creates a larger wound cavity and more soft tissue damage than a stable round. The military documented instances where the M855 round was passing cleanly through small statured enemy troops with out deforming or yawing. This has a significant adverse affect on lethality. The light bullet and twist rate encouraged the bullet to fragment and yaw upon impact. The Pentagon increased the rifling twist rate and bullet weight in an effort to increase the effective range of the round. These changes also made the bullet more stable. Remembering that Stoner designed his rifle to fire a cartridge that is marginally stable, it comes as no surprise to experienced shooters that the effectiveness of the round began to decline as the "Chairborne Rangers" began fooling with it.

The above points aside, it is clear that while the 5.56mm round was suitable for certain environments, it is not an ideal round for the desert and mountains. Special Operations Command and the Army Marksmanship Unit worked to find a suitable replacement and ironically came up with a round very similar to one that

was almost adopted shortly after WWII. The 6.8 SPC fires a 115 grain bullet at about 2650 to 2700 FPS out of a 16" barrel and yields MOA accuracy. This is very similar to a .270 caliber round that was tested prior to the adoption of the .308/7.62 NATO round in the fifties.

While the 6.8mm SPC seems ideal for military use, the 5.56mm may still have an edge in some urban environments where excessive penetration is an unwanted attribute. There is always an urge to jump on the newest and latest military product to come down the pike. It's important to remember that while the operations of the military and law enforcement are more closely aligned now than in the past 75 years, there is a considerable difference between our needs and theirs.

A classic example of this is the adoption of the 9mm cartridge by law enforcement in the 80's in response to the DOD adopting the M9. Twenty years later the military considers the 9mm a basic failure is will most likely return to a service pistol in .45ACP.

Before you rush to change over to the 6.8mm, be sure it will fulfill your needs and expectations. Do your homework thoroughly and make the decision based on facts rather than what's popular.

MLEFIAA E-Board Looking at Corporate Sponsors

The Association Executive Board is considering sponsorship offers from two companies. Both approached the E-Board without being solicited and have made interesting offers.

Wiley-X has made a formal offer in a letter to MLEFIAA from their VP of Marketing Dan Freeman. Mr. Freeman heard of the Association through POSAI (Police Officers Safety Association, Inc.) and initiated the offer to be the "official protective eyewear of MLEFIAA".

A second company, Brite-Strike Tactical Illumination Products offered to sponsor a course at the upcoming Conference. Since no endorsement of their product was necessary, the Conference Committee accepted the offer and Brite-Strike will sponsor the Building Search for Patrol Officers which will be taught by Ulf Petersson and Peter Fredriksson of the Skane PD in Sweden.

In the case of Wiley-X, they have proposed to supply eyewear, goggles and gloves to instructors on an ongoing

basis. The company's advertising states they are one of the best known protective / ballistic eyewear companies in the world with 20 years of experience.

The Executive Board has entered into talks with Wiley-X to firm up what they are offering and what, if any, obligations the Association would be expected to fulfill. Before any agreement is made, the E-Board will make full presentation to the membership at a regularly scheduled (Continued on Page 9)

From Flashlight to Tactical Illuminator

This is the first of a three part series taking a look at tactical lights and using them to our best advantage. Parts II and III will appear in future editions.

Tactical Lights 101

We have come a long way from the 2 cell incandescent flashlight of 30 years ago. Back in the day, the aluminum bodied Kel-lite was state of the art and it was still called a flashlight. As the years went by we saw lights get smaller and brighter. Along with the high tech circuitry comes a high tech name – Tactical Illuminators. Any officer with his head in the game does not go to work without a light. Really savvy ones will carry two since Murphy usually rides with us when we least expect it.

One aspect many trainers fail to recognize is in the dark, we are legally blind without a light. Our ability to distinguish detail goes south as the light fades away. We lose our ability to read license plates, see facial features and make the distinction between a wallet and a firearm. The courts have mandated dim light training and many departments include a “flashlight” in their list of required equipment an officer must have when reporting for duty. In short, the light has become as necessary as your service weapon.

As lights have become more complex, so has the task of buying a light. Look at the terms the manufacturers throw at you – Lumens, candela, halogen, xenon, and LED just to name a few. So how does the average officer make an intelligent decision on which light to purchase? Hopefully this will help you recognize what you need and how to buy the light that will best fill your requirements. First, let's look at some of the terms and what they mean to you.

Lumens and candela are both measures of brightness of a light HOWEVER they are not synonymous. Simply put, candela or candlepower is the brightness of a light measured at the light source. We can call this radi-

ance. A lumen is a measure for the amount of light that reaches the object you are trying to illuminate. We can call this “luminance” for lack of a better term.

While both terms relate to the brightness of a light, there is no direct conversion between the two. It's like comparing horsepower to miles per gallon. I suggest that if we are purchasing a light to illuminate a potential deadly threat, we need to consider a measurement at the target. Look for the Lumen rating. The higher the number, the more light that is going to be cast on the target.

Watch for lights that have a focused lens which concentrates the beam of light into a very small area. This is a way to increase the apparent brightness of the light without really making it any brighter. It usually comes at a loss of light to the periphery which means you have a very narrow beam with lots of shadows to the side. The exception to this rule are the lights which have an extremely high Lumen rating (in excess of 150 Lumens) which tend to light up everything in the area regardless of the lens design.

The most common lights today can be found in two varieties - Incandescent and LED.

There are two popular types of incandescent tactical lights – Halogen and Xenon. Both have a tungsten filament which glows white hot when current is run through it. Inside the lamp, the filament is surrounded by inert xenon gas or a mixture of halogens which allow the filament to burn brighter without burning up. They also keep the inside surface of the lamp clean which makes for a brighter light. With mass production, these light sources are very cost effective and are much brighter than the old flashlight bulb. The filament has a limited life span and like any other light bulb, must be replaced. A serious drawback is the relative delicate construction of the filament. This can result in a broken lamp if the light is dropped or handled roughly

which is an occupational hazard with law enforcement.

The LED (light emitting diode) is a solid state light source which contains no gas or liquid components. The semi conductor chip converts electrical energy into light. There are several big advantages of LED's. They last for thousands of hours compared to less than 100 hours for a high intensity filament light. The construction is much more robust than a filament type lamp which makes them better suited for use as a weapon light or in an environment where rough handling can be expected. LED's withstand the recoil and banging around associated with military and law enforcement service.

LED's require far less power for the amount of light they put out. They can be built to take smaller batteries and they last longer. LED's can also be regulated to put out various levels of light. Up to a few years ago, LED's did not have the lumen output to make them an effective tactical light. This has all changed and LED's now are some of the brightest tactical lights on the market. The cost was initially high but has dropped as manufacturers refined the production process.

But buyer beware – all LED's are not created equal. From what I understand, making LED's is like making diamonds. You don't know what you are going to get until it's done. After manufacturing process, LED's are inspected to determine the quality and intensity of the light they produce. Graded by brightness and light quality, the best quality modules are classified as Bin Level 1 and as the quality decrease, the bin level number increases (i.e. the lower the number, the higher the quality). Obviously bin level 1 and 2 command higher prices which translates into a more expensive light. This is why you see LED lights ranging from \$15 to \$300. The price is usually directly proportional to the Lumen rating and color quality of the LED element.

(Continued on Page ____)

E-Board Looking at Corporate Sponsors (cont. from Page 7)

monthly meeting and with an Email notification. In discussion up to now, the Board has agreed to listen to what Wiley-X has to offer and that a vote from the membership approving the principle of corporate sponsorship in in order before formally accepting this offer.

The sub-committee to consider this proposal consists of the 2nd V.P, Secretary and Master-at-Arms (Vendor Coordinator for the Conference).

As this blazes a new trail in the

history of the Association, the Board welcomes input from the membership. There are two sides to every story and this is no different.

On one hand, the Association was formed to be apolitical and have no ties with any body which would influence our operation. This has somewhat limited what MLEFIAA could accomplish over the years. On the other hand, we have grown in numbers and stature through venturing into areas the founders seemed to shy away from. This mission has

been successful but as our goals expand, so does the need to finance the mission. At one time, the money raised by having vendors set up at the Conference Expo was sufficient to cover our needs. This is no longer the case. Fewer vendors attend the conference and we have kept the fees low in an effort to retain the ones that do come.

Your comments are welcome and can be directed by email to Secretary@mlafiaa.org.

Lithium Battery Advisory

At the June instructor recertification, we received some interesting information from a member regarding an incident he had with his lithium battery powered tactical flashlight. The member, John Dillon from Ashby PD, wrote:

"This information is regarding the exploding lithium battery. The battery is a lithium 123A 3.0 volt brand name is Powerizer, made in China. The light affected is a Pentagon PX2 with a zenon bulb. In both cases, the first battery in the light closest to the head blew off, and discharged some debris. The threaded head came off. Light still functioned when fresh batteries installed. In both cases, light was not in use, and in patrol vehicle. In both cases, same battery - same result."

"The light has 60-70 minutes power with 2 lithiums. Neither battery was at end of service life. No injuries sustained, but I was rather surprised when I tried to use light, and found head missing. I must say that the light still is in use, and is reliable when using other batteries. One other word about this, I bought bulk batteries from company called "Battery Station" and found that batteries lasted 20-30 minutes in both the Pentagon and Surefire M3 w/125 lumen bulb. I would caution against using these based on that my

recent experience. Almost any other batteries are lasting at least one full hour. Please advise if any questions about this."

Looking into the topic of problems regarding lithium batteries uncovered a history of problems that have plagued users of small tactical lights powered by the 3 volt "123" size lithium cells.

I found a pilot who had purchased a "Brinkmann" light and was using Radio Shack CR123 Li batteries who experienced a similar failure. A photo of the defective battery is found below.

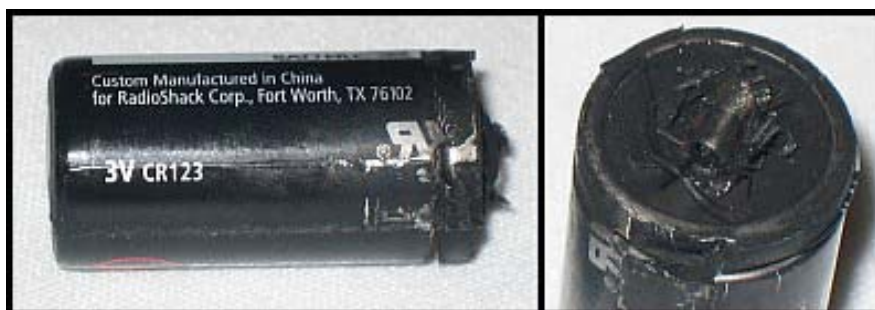
The U.S. Consumer Product Safety Commission issued a Product Recall for the Gall's HALO flashlight and the lithium batteries it came with in Sept 2003 due to five reports of overheating or exploding batteries.

Last month, Brite-Strike Tactical Illumination Products furnished the

Association with information it received regarding counterfeit Panasonic CR123 cells that were being sold in bulk on the internet. The bogus batteries lacked the fine print that Panasonic puts on their product.

In all cases, there were problems which resulted in either the battery overheating or rupturing which lead to an overpressure of the light body. Remember, most of these lights have O-ring seals to make them waterproof which allows the pressure to build up.

The common denominator in all cases seems to be the battery was made in China. We recommend you use a reputable manufacturer or the brand recommended by the company that made the light. If you are looking to buy these off the internet at fifty cents each - BEWARE! Lithium CR123 cells are expensive and like most things, you get what you pay for.



From Flashlight to Tactical Illuminator (Cont. from Page 8)

An element of the light which is often neglected during the purchase process is the reflector. This is the surface that creates the field of light and the shape of it. The shape is far more important than conventional thinking lets on. As a matter of fact, there is an entire market devoted just to manufacturing reflectors for various types of light sources.

If the reflector focuses the beam in a pattern that is too narrow, you will lose your ability to see threats in the periphery. As mentioned earlier, some manufacturers use this style of reflector to increase the amount of light their product casts on the target. This is usually done to compensate for a

lower quality bin level (read cheaper) LED light source. We continually caution our officers about tunnel vision. This type of light actually creates this situation.

In an effort to boost the apparent brightness of their light, some manufacturers have really pinched in the beam which I feel leaves the officer at a serious disadvantage. The narrow beam creates a constricted tube of light which restricts the officers ability to see wide areas. This effectively creates tunnel vision. In order to counter this deficiency, the officer must chase the "hot spot" around to follow or find the target. Common sense tells us that the more concentra-

tion the officer must divert to illuminating the threat, the less focus they have for identifying specific features including the distinction between a harmless object and a weapon.

Light designers who really understand police work and what a tactical light has to do will give you a compromise on beam angle and focus. The goal is to focus enough light to the center to give the light sufficient range to see the threat early on while providing a wide angle beam which illuminates the area with enough light to see detail. In the past, the LED was not bright enough to provide both which is why Halogen and Xenon lights were a better choice for law enforcement.

The ultra high intensity LED's now available can provide a flood type beam which illuminates not only a wide area but a good distance out as well. The Brite-Strike Blue Dot Series is a leader in this area. They have completely eliminated the "hot spot" found on most light beams. The area is illuminated uniformly with no distracting contrasts in light intensity. It's hard to believe a small pocket sized light will illuminate an entire M/V stop scene but they will.

The advantage today is the police officer can replace the large club like D cell flashlight with a light which is no longer than a pen or bigger in diameter than a good cigar. The small size allows the officer to always have a light with them. I think everyone of us has been in a situation where they needed their light which was back in the cruiser (or locker).

The larger lights have always had the stigma of being an alternate to the baton. Recently the LAPD banned the use of large rechargeable lights in favor of the smaller tactical light because of an incident where officers may have struck someone with the big light. Imagine the effect on the jury when you pull your small tactical light from your pocket and say, "Your Honor, this is my flashlight. How could have I hurt him with this little thing."

NH State Police - SIG Out... S&W M&P In

Smith & Wesson has announced that the New Hampshire Department of Safety which includes the State Police, Highway Patrol and Marine Patrol, has selected the .45 caliber Military & Police pistol as their new service pistol. The M&P will replace the SIG Arms P220ST which was adopted a few years back.

Sources close to the Case Head report that the NHSP was not happy with the P220ST after several problems arose with the pistols. It was reported that quality control and engineering issues led to the dissatisfaction. The announcement indicates that the Exeter, NH company was not able to rectify the situation. For many years SIG has had the reputation of being

one of the most dependable pistols on the market. Case Head readers will recall the Mass. State Police had some QC problems with the new P226R DAK pistols purchased last year. Both the MSP and SIG report these problems were resolved and the pistols have been issued to the troopers.

Smith & Wesson stated the NH DPS has ordered 500 M&Ps and cited the interchangeable grip back strap, ambidextrous controls, ergonomics and the magazine disconnect as some of the reason they chose the M&P45. It is not known if the pistol will have the frame mounted 1911 style safety.

Glock Armorer School Coming to Randolph PD

The Randolph Police Department will be hosting a Glock Armorer School on Thursday, October 25, 2007. This is a factory sponsored program and covers all Glock's models available to law enforcement in the U.S.A. Course fee is \$150.00. Anyone interested in taking this class needs to register on Glock's web site in the Training section (www.glocktraining.com). Registration forms and more information can be found on the Glock Training web site.



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