

**JULY 04**

**INFORMATION LETTER/UPDATE:**

**Calendar Changes/Updates:**

- 18-20 August, 04      Kent, OH      TTL      **Cancelled.**
- 18-22 Oct, 04      San Marcos, TX      Shoot House Inst      **Added**
- 29 Nov-3 Dec, 04      Denton, TX      ADV HR      **Added**

**RANGE UPDATE:**



I will be doing some dozer work early this month in an effort to finish out three ranges. The first is a 25 yard general purpose range, the second will be a 100 yard rifle range and the third will be a 300 yard tactical/hunting rifle range. I am looking to have an all weather road in by the end of August and to begin some tactical/hunting classes during that time frame. The word is starting to get out and I am getting calls from parents who would like me to teach their children firearm safety. I am looking at doing one-day pistol, rifle and shotgun classes. I have not determined an age cut off, but I am looking at only taking five students per day, per class. I think it is important to teach children proper firearm safety at an early age as proper weapon handling is a life long investment.

**TACTICAL RIFLE INSTRUCTOR COURSE**

I just finished a six-day Tactical Rifle Instructor course in Ennis, Texas which is located just below Dallas. We were rained on hard the first four days and then the weather gave us a break. I was grateful the class was small (7) as it was a first time class. This allowed me to take notes and get some good critiques from the students on what points I can polish up on my class/instruction.

The instructors then put on a two-day Tactical Rifle course under my supervision to demonstrate a working knowledge of the techniques they learned in the class. This class also went well and a student who attended will be submitting an article to SWAT magazine.

## **PAPER VS. STEEL**

While instructing many first time students, I have found that it is critical to begin with a solid instruction program that includes dry-fire, live fire and paper targets. As a general rule, I do not shoot steel more than 10% of the time during an initial course. I prefer to fine-tune students using paper targets and develop their personal weapon mechanics and then let them sample some steel targets later in the course.

## **HYDRATION**

As man evolves, we tend to migrate to the indoors and air conditioners in the Summer time. Yours truly does, especially during the Texas heat. Usually I schedule my trips up North during this season, but this year I decided to gut it out and do some courses around the area. What I have found is that heat is kicking some butt during training.

Some officers come to courses fresh from working a night shift, some come from office jobs. The first day shock of the heat is taking its toll and I recently had an officer not show up the second day of a two-day course due to hydration problems. He spent the morning of the next day in the ER getting his fluids up.

First, I suggest that you cut out the diuretic beverages one to two days before the course. That is, cut back on sodas, coffee and any high caffeine drinks. Replace it with water and start force hydrating. Pre-hydrate prior to training, drink during training and post-hydrate after training.

A simple indicator is your urine. One officer remarked he did not urinate until midnight the first day of the course and we left the range at 5:00 pm. When your body feels that it is not getting enough liquid, it will shut down in an effort to conserve it. If it has plenty, you will routinely have to urinate. You should force liquid prior to the course, even though you might have to get up a couple of times in the middle of the night. The alternative can be serious. Generally I see folks who get dehydration headaches on the range and this usually leads to diminished performance and other complications.

Do yourself a favor and start pre-hydrating a couple of days before a course. Cut the diuretics and start forcing the water down. Also, during the course, don't rely on Gatorade and the designer drinks to get you by. Water and lots of it is the best solution. At the end of the day, drink more. If you go out and tie one on, you will pay for it the next day. Your body will be trying to process the alcohol out of your system while at the same time trying to keep you cool. Your personal cooling system will be working overtime.

A final thought. You can easily train in the Summer months. You may not move as fast and get as much accomplished, but by taking routine breaks and pumping the water down, you will be able to accomplish a great deal of your training goals and help ensure your survival.

**Below is a letter provided by Dr. Alan Frankfurt of Dallas, which provides a more detailed description of dehydration:**

**Training for tactical officers must be realistic. Training is about pushing the one's limits under controlled and supervision. This includes providing correct medical knowledge and learning how to use it to prevent degradation of officer performance and maintain good health. Training in the Texas heat can be an educational experience if performed under the proper supervision and with the insight to recognize potential problems. Heat emergencies consist of three conditions, heat cramps, heat exhaustion and exertional heat stroke.**

**Before tackling heat emergencies, it is imperative to understand how the body rids itself of excess heat. As an individual exerts him/her self, the body produces heat as a byproduct of exertion. Although multiple mechanisms exist for the body to rid itself of excess heat, the most effective method of dissipating this excess heat is through evaporation (convection), although moving a person into a cooler environment also is effective (radiation).**

**Evaporation results in the cooling of the body by the loss of heat as sweat evaporates off the skin. This means that the sweat on the skin must be exposed to the environment and that the environmental breeze has access to the skin. Sweat that simply rolls off the body or is absorbed onto clothing or equipment is not available to participate in the cooling process. Heavy clothing and high humidity prevent the evaporation of sweat. Tactical officers training or operating in hot and humid environments have little skin exposed due to clothing, LBV, body amour, gloves and balaclava usage.**

**It is interesting to note that although the body can acclimatize to operating in a hot environment, this requires repeated periods of moderate exercise for 1 to 4 hours in a very hot environment for approximately 14 days. An equally important fact is that the body is limited to absorbing only 1000cc of fluid from the gut per hour. This means that if an officer is losing more than 1000cc of sweat per hour, you cannot effectively re-hydrate by mouth and you will become dehydrated. Thirst is a delayed symptom of dehydration and should signal that the individual may already be behind on fluids. Bring a portable scale to your next training evolution and weigh before and after the training. A one percent loss of body weight is enough to cause performance degradation.**

**Heat cramps usually occur when fit individuals exercise vigorously in hot weather, replacing fluid loss with water and not enough salt. Proper fluid intake during hot weather exertion requires both water and electrolytes.**

**Heat exhaustion is caused by both water and electrolyte depletion. There must be an adequate amount of fluid circulating in the blood vessels to provide oxygen to the working muscles as well as blood to the skin so that cooling can take place through sweat formation. Symptoms of heat exhaustion include:**

**Dizziness, weakness, headache, lightheadedness, fatigue, muscle cramps, nausea and vomiting, sweating with cool, moist skin and shallow breathing. Body temperature should not be higher than 104°F.**

**It cannot be overemphasized the importance in determining whether the heat injured patient is thinking clearly and properly. The patient's mental status exam differentiates heat exhaustion from the potentially lethal heat stroke.**

As long as the patient is coherent and can tolerate fluids by mouth, rehydration can take place orally. Move the patient to a cool environment and a water/electrolyte solution should be offered.

Heat stroke reflects the body's total failure to control temperature, allowing body temperature to rise to dangerous levels resulting in the death of cells. Tactical officers suffer from exertional heat stroke, as opposed to classic heat stroke, often experienced, over a period of days, by elderly patients found in unairconditioned homes or apartments in the hot summer months. Heat stroke is identified by a *combative, disoriented patient* whose body temperature is often greater than 104°F. Upon approaching an officer suspected of suffering from heat stroke, the officer's weapon should be secured immediately. The amount of damage suffered in the heat stroke patient is dependent upon how high the body temperature rises and the duration that the temperature is allowed to remain at dangerously high levels.

Treatment of the heat stroke patient should begin immediately. The officer should be stripped of his/her clothes, wetted down with water and air should be moved over the individual. This can be accomplished best with a fan, but anything that aids the movement of air over the damp, exposed skin will result in a cooling effect.

Prevention of heat related injury is the goal of the Medical Officer. Training evolutions taking place in the summer months offer an opportunity to provide a class on heat related illnesses as well as practice effective preventive measures. Begin by obtaining a wet bulb globe temperature or heat index. A WBGT greater than 90°F or a Heat Index greater than 105°F, adding 15°F for direct sunlight, represent dangerous training conditions and should be undertaken with medical personnel available, weighing officers at the beginning of the training and every two hours. Build in rest periods and offer cool electrolyte solutions, avoiding salt tablets and the use of plain water, soda, and caffeine beverages. Avoid aspirin, high blood pressure medications, antihistamines and alcohol.

During actual call outs, many safety features that can be incorporated into training may have to be disregarded. Still, the Medical on scene consultant can minimize danger by:

1. Suggesting that the perimeter positions be set up in shaded areas if possible.
2. Officers deployed should carry plenty of electrolyte solution and drink large amounts, understanding that it could take 10-15 liters of fluid to remain hydrated. Remember, covering skin with clothing retards efficient evaporation of sweat.
3. Rotate personnel back to the staging area frequently.
4. Provide a cool environment for the officers that are air-conditioned.
5. Remember early symptoms of heat illness may simply be a headache. Early recognition is imperative as attempting to push through heat related symptoms once present, is difficult and risky.

### **EQUIPMENT:**

I usually tell students during a class that I am a little slow in changing equipment or adopting new techniques. I like to see it proven in the field first and also weigh the advantages to the change.

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I have found a new piece of gear that I like and finally changed it on all my AR style rifles. This simple device is the one a point sling system. The most common hardware can be found at GG & G and is easily installed.

The next issue is what sling to purchase. My suggestion is to make your own. A couple of officers from a recent course took my suggestion and purchased the components for about \$6 and made a nice sling. The photo below shows the simple sling made of 1" "tube nylon" which has a tensile strength of about 4,000 pounds. I use a common water knot to tie it, but they found plastic buckles at a local REI to secure the two ends of the sling. The hook can be found at a local hardware store for about \$1.50. You simply make it a little oversized to fit your Kevlar vest and you have a custom sling that will allow the weapon to hang in the center of your body for transition drills, allowing access to your pistol and magazine pouches.



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**IN CLOSING**

Again, to the Law Enforcement officers, I just want to say thanks to all the men and women I have had the pleasure to work with these past years. Thank you for your dedication and service to our great nation.

Respectfully,

Paul R. Howe