

**The Bill Blackwood  
Law Enforcement Management Institute of Texas**

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**Analysis for adoption of the 223-caliber rifle with the Texas Alcoholic  
Beverage Commission**

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**An Administrative Research Paper  
Submitted in Partial Fulfillment  
Required for Graduation from the  
Leadership Command College**

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## **ABSTRACT**

The research paper being submitted for graduation from the Leadership Command College examines adoption of the 223 caliber rifle by Agents with the Texas Alcoholic Beverage Commission. Agents presently are only authorized the twelve gauge shotgun as an auxillary firearm to their handgun. The paper examines reasoning behind why a law enforcement officer needs an auxillary firearm and the advantages/disadvantages of the two most common auxillary firearms, the twelve gauge shotgun and the 223 caliber rifle. Review of the material revealed data necessary to form a conclusion. The conclusion is a need exists for TABC Agents to have an auxillary firearm. The 223 caliber rifle presents several advantages over the current twelve gauge shotgun. The advantage of the 223 rifle includes: more accurate past handgun range, better terminal ballistics, reliable penetration of body armor, less risk of over penetration and more user friendly.

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## INTRODUCTION

The issue this research paper will examine is whether the 223 caliber rifle as utilized by Enforcement Agents with the Texas Alcoholic Beverage Commission (TABC) can supplement the police shotgun. Presently, Agents are only authorized the twelve gauge shotgun as an auxiliary firearm to their handgun. This project hopes to present a logical justification allowing the expansion of auxiliary firearms to include the 223 caliber rifle.

The research will undertake the task addressing the question “Is there a definable need for the 223 rifle with TABC?” By examining and comparing the law enforcement job tasks that have already accepted the 223 rifle as an auxiliary firearm to the job task performed by TABC Agents, some sort of conclusion should be established.

Inquiry into the topic will be a multi-facet approach. These include but are not limited to:

- (1) Polling Departments utilizing the 223 rifle
- (2) Polling Administrative personnel within TABC for positive and negative input with the subject topic
- (3) Reviewing research papers submitted to LEMIT by previous students
- (4) Researching printed material in publication form such as books, magazine articles, and pamphlets from the firearm industry
- (5) Interviewing police trainers who are actively addressing this topic in the form of specialty, hands-on schools

The outcome anticipated from the research proposes that adopting the 223 rifle as an auxiliary firearm, will provide the TABC a definite need for the use of the force

continuum puzzle. Issues that will be presented to senior management will include areas such as liability and cost analysis.

The primary benefit gained by the research will be helpful to the field Agents with TABC. If the rifle is justified, the TABC agents will have another tool to utilize as the job demands dictate. If the adoption of the rifle is not found to be warranted, there will be research documented in support of that conclusion.

## **REVIEW OF LITERATURE**

Most development with the shotgun in TABC has followed qualification mandates outlined by TCLEOSE. When interviewed for this paper, Agency firearm instructors have found that Agents smaller in stature are intimidated by the shotgun mainly due to its high recoil. The instructors have also discovered that most Agents load the shotgun in a manner where slug ammunition will be the first round discharged. (personal communication with Deering, 2004). This utilization of a shotgun puts it more in line with rifles. To determine why this is being done and discover possible alternatives to this practice, an examination was conducted on rifles being used by patrol officers. On February 28, 1997, an incident in North Hollywood (Los Angeles) happened. The events surrounding this bank robbery have forced law enforcement officers to examine their use of force options with firearms.

After robbing a bank, two suspects armed with automatic, and semi-automatic rifles were faced with officers who were armed with only 9-millimeter pistols and shotguns. The shotguns utilized by the officers had both buckshot and slug ammunition. Due to body armor being worn by the suspects and the distances the officers were forced to return fire from, the responding officers found themselves literally outgunned. The suspects shot eleven officers and five civilians in the hour long incident. Tactical

units had a delayed response time. Officers on the scene obtained rifles (223 caliber) from area stores in an attempt to suppress the suspects. (Williams, 1998).

Across the nation, departments examined this incident. Most found that accurate, aimed rifle fire would have ended the incident earlier than it did. The aimed fire would have provided officers the capacity for headshots. Handguns and shotguns were no longer viewed as adequate weapons for the officers when faced with an active shooter. (Huntington, 1997).

Shotguns have been an effective law enforcement weapon for over 100 years. Utilization of the shotgun by patrol officers has not changed much during this time frame. Basic justification for the shotgun remains in the tremendous stopping power available on an adversary over the handgun. (Unknown, 2003). The pulverizing effect of multiple strikes on a human body is many times greater than the wound created by a single bullet. (Williams, 1998). Recently, less lethal methods have been introduced for the shotgun. These include oleoresin capicum (oc) and beanbag devices.

However, when we consider the positives aspects with a use of force option, there also needs to be a discussion of the negative aspects. Negative discussion generally leads to the examination of liability issues.

The shotgun utilized by TABC is authorized by policy for 00 buckshot ammunition or slug ammunition. The 00 buckshot consists of nine lead pellets (.33 calibers each). With a single pull of the trigger, the pellets travel down-range and are lethal up to 200 yards. One tactical drill utilized in shotgun training with TABC demonstrates firing a shotgun with buckshot at an angle onto a hard surface like a road (concrete or asphalt) to have the rounds ricochet into the intended target. This drill is commonly referred to as skip and can be very effective against suspects

barricaded behind an automobile. The shotgun with buckshot is limited in effectiveness due to the pattern spread by the buckshot. Once the pellets exit the barrel, they spread apart at an average rate of .50 to .75 inches per yard. It is difficult to ensure that all pellets will engage a target when the target is beyond twelve to eighteen yards.

(Farnam, 2001). Placing a device called a choke in the barrel of a shotgun to restrict the spread of the buckshot or placing rifling inside the traditionally smooth bore of a shotgun barrel are futile attempts at best. Most of the time, these devices cause the buckshot to spin in a manner occurring in a circular pattern leaving the middle portion of the pattern empty.

The shotgun slug weighs approximately one ounce and when discharged has a lethality range of approximately 800 plus yards. What makes the slug effective is the sighting system on the shotgun. Bead sights are the most common. They consist of a simple bead near the end of the barrel. Improvement can be gained by adding rifle sights to the barrel. Rifle sights consist of some sort of combination of front and rear sighting system. This allows for an improved sight alignment when compared to what is provided by the single bead. Trainers have discovered that even with sight improvements, officers using slug ammunition can only effectively strike a target the size of a human torso at 50-60 yards. (personal communication with Harper, 2003). The recoil generated by a shotgun, with either buckshot or slugs, is at least 18 foot-pounds of felt recoil. Officers have described this level as being unpleasant. (Williams, 1998). This very real perception of this discomfort causes an officer to flinch (move the barrel of the weapon) when discharging the weapon. To be effective, a round discharged by any type of weapon needs to hit the target. (Farnam, 2001). Flinching while the weapon is being discharged has a negative impact on what the round does. Agencies have

combined this perception of the shotgun with shrinking training budgets. This has produced lower training time behind the trigger, lack of familiarity with the weapon and lower comfort levels by the officers when considering deployment of the shotgun. (Williams, 1998).

Officers are trained to be held accountable for every round they discharge. They are responsible for rounds that strike the intended target as well as the rounds that don't. (Pilant, 1992). When slugs are issued as approved ammunition, it is generally rationalized to compensate for the limited range and lack of penetration by buckshot ammunition. (Williams, 1998).

There have been many published penetration tests conducted by researchers. Tests using 10% ordinance gelatin showed the .223 rounds weighing 55 to 60 grains penetrate, then the round fragments (break up) creating a diffused wound cavity within the first four to five inches. (Roberts, 2004). These wounds cause severe damage to the entry area without excessive penetration. This type of wound causes increased tissue disruption which leads to greater incapacitation of the suspect. (Roberts, 2004). The shotgun slugs show a tendency to over-penetrate. (McGuire, 2002). Testing has shown the .223 round actually penetrates less in mediums such as sheetrock, wood and tissue, as compared to the penetration that occurs with pistol calibers and slugs. (Pilant, 1992 & Roberts, 2004). The 223 round generally stayed in the mediums while all the others exited. (McGuire, 2002). Many of the common 223 rounds have less penetration against common interior walls and doors than pistol caliber rounds. (Rauch, 2004). The .223 round fragments (break up) when striking many of the above listed surfaces while the shotgun slugs retain most of their weight and keep traveling through the surface and then down range. (Roberts, 2004). The 223 round is generally unstable if it exits or



misses the target. In fact, it usually disintegrates if it strikes an object of resistance. Concrete, brick or asphalt cause the 223 round to fragment (break up). Ricochets from this action are less hazardous. (Roberts, 2004). The 223 round seems to offer a reduced risk to bystanders if a stray round misses the intended target. (Taubert, 2003). The skip drill taught by TABC with buckshot ammunition emphasized the lethal potential of buckshot after striking a solid object. Buckshot does not fragment, it tends to flatten.

Suspects wearing body armor have to be considered in law enforcement firearms training. With the handgun, drills such as the “double-tap then head” have been implemented to specifically deal with suspects wearing body armor. Testing has shown that all common handgun calibers will not penetrate Level II A body armor. (Roberts, 2004). Buckshot fails to penetrate the armor and slugs showing mixed results. Some buckshots and slugs penetrate armor and others do not. All of the common 223 rounds penetrate up to level III A of body armor. (Roberts, 2004).

## **METHODOLOGY**

There are three central questions posed through the introduction: (a) “Is there a definable need for an auxiliary firearm with TABC”, (b) “Is there an advantage/disadvantage to the twelve gauge shotgun with TABC and (c) “Is there a definable need for the 223 rifle with TABC?” The conclusion should determine that there is a need for the 223 rifle as an auxiliary firearm with the TABC.

The information obtained in the research was analyzed by comparing the advantages/disadvantages of the shotgun to the advantages/disadvantages of the 223 rifle. TABC identified many years ago a definable need to augment the issued handgun with the shotgun in the use of force continuum. Shotguns utilizing buckshot and slug

ammunition were authorized. Semi-annual training (with qualification proficiency) utilizing the shotgun has been on going within the Agency.

A review of printed material in publications such as books and magazine articles reveals data related to the comparison. Previous LEMIT students have conducted their own studies on the subject and these reports were reviewed. Interviews with police trainers actively involved with on-going training programs specific to the subject was conducted to further verify and clarify the gathered data. A survey was conducted with nineteen law enforcement agencies. The method of measurement instrument consisted of telephone interviews, e-mail correspondence and direct in person conferences. The various agencies represented in the survey sample are municipal, county and state organizations. They range in size from less than thirty to over three thousand. There was one hundred percent response rate. The obtained survey information was analyzed by cross reference comparison with data gathered through review of research papers previously submitted to LEMIT, research of printed material in publication form and interviews with police trainers. A hands on and type of demonstration was conducted with TABC employees at one of the semi-annual weapons qualification. Three attendees at the qualification compared firing the twelve gauge shotgun for marksmanship proficiency vs. firing the 223 rifle.

## **FINDINGS**

When national prohibition was repealed by passage of the Twenty First Amendment, individual states were allowed to adopt methods regulating the alcoholic beverage industry. Texas created the Liquor Control Board in 1935, which is now known as the Alcoholic Beverage Commission (TABC). Today, TABC has over five hundred employees. The largest and most visible division within TABC is Enforcement.

Within the Enforcement division, approximately two-hundred-sixty state licensed peace officers (Agents) are assigned to field regions. Each region has a district office and various outpost offices. The district offices are in urban settings, while the outpost offices are in generally in rural communities. The job description for a field Agent is enforcing laws primary in the area of underage drinking and intoxication issues. The Agents support local, county and other state peace officers daily in our job function.

Firearm training has been ongoing throughout the inception of TABC. From the beginning until the late 1970's, each peace officer carried a personally owned handgun. Shotguns and/or rifles were not approved for on-duty usage. In the late 1970's the Smith and Wesson Model 66 357 pistol was adopted for duty usage. In the late 1980's, shotguns were approved for duty usage but limited to be carried only in the trunk. The majority of these shotguns were personally owned. A separate later study supporting shotgun approval as a use of force option supported the argument that handguns are for close distances (usually less than 25 yards), have a short sight radius and no shoulder support. Both of these factors can cause the weapon to be less accurate than a long gun. (Williams, 1998). In 1991, a nine-millimeter pistol replaced the previously issued revolver. The shotgun was approved to be carried in the cab of the vehicle, but required to be locked in the trunk when the vehicle was unoccupied. Approved ammunition for the shotgun continued to be only 00 buckshot. In 1996, a 40-caliber pistol replaced the nine-millimeter. Slug ammunition was authorized for the shotgun. In 1999, personal owned handguns were approved for duty usage.

Administrative decision makers have viewed a rifle carried by patrol officers in a negative light due to a perception of over penetration. Over-penetration causes the

bullet to exit the suspect and continue downrange causing the potential for tremendous liability issues. (Unger, 2000).

This paper does not research specific training programs for implementation of a patrol rifle policy. The data reviewed shows that the rifle in 223 caliber is easier to shoot than a shotgun or pistol and enables precise shot placement. The measured recoil on the 223 rifle is around 2 foot-pounds. This means the officers have a higher incident of striking what they shoot at. When a firearm is more comfortable to utilize, it generally means officers will train more with it. More training time behind the trigger means higher proficiency. (personal communication with Deering, 2004). During a marksmanship qualification with employees of TABC, three individuals were asked to assist in a demonstration of the less recoil means better chance to hit the target. Two of the individuals were female employees who find firing a twelve-gauge shotgun to be very unpleasant. The other individual was a ten-year-old male. The two females fired the shotgun for record and hit the target less than half the time with buckshot. When the three individuals fired the 223 rifle at the same target, not only did they hit the target every time, they were able to accurately place the shot were requested (either body or head). This was after about five minutes of familiarization training with the rifle as all three had never fired one before. The cost of ammunition for the shotgun is about \$1.00 per round. When purchased in bulk, 223 ammunition is 7.5 cents. Numerous tests in training programs clearly show the accuracy potential of the 223 rifle over the shotgun or handgun being deployed by excited or nervous individuals. With iron sights, most officers can easily place effective rounds in a target out to 100 yards with the 223 rifle. At shorter distances, much smaller targets (head shots) are viable. (Huntington, 1997 & McGuire, 2002 & personal communication with Harper, 2003). Clint Smith, the founder

and director of Thunder Ranch states “Handguns are great. They give you something to fight your way to your rifle with. They keep you in the fray until you can respond seriously” (personal communication with Harper, 2003).

The shotgun has drawbacks and limitations in its usage. They include (a) short range of 10-20 yards with buckshot (b) severe recoil (c) hazardous to bystanders due to poor control of projectiles to target, (d) excessive penetration (e) inability to reliably penetrate body armor. The 223 rifle offers advantages of (a) greater incapacitation potential than shotgun ammunition (b) greater range of proficiency for the officers (c) reduced penetration and reduced hazard from ricochet (d) reduced recoil (e) effective in penetrating body armor. (McGuire, 2002).

The survey discussed in the methodology section asked three questions in the inquiry: (a) “Does your department recognize a need for an auxiliary firearm to the handgun?” (b) “Is the twelve gauge shotgun authorized as an auxiliary firearm?” and (c) “Is the 223 rifle authorized as an auxiliary firearm?” Of the nineteen agencies polled, one hundred percent responded. One hundred percent of the agencies authorize an auxiliary firearm to the handgun. One hundred percent authorize a twelve gauge shotgun as an auxiliary firearm to the handgun. Eighteen of the nineteen agencies authorize a 223 rifle as an auxiliary firearm to the handgun. The lone agency that does not currently authorize the 223 rifle is re- evaluating their current policy for possible adoption.

The research gathered shows there is a need for an auxiliary firearm to the handgun, the twelve gauge shotgun is an auxiliary firearm issued to law enforcement agencies and the 223 rifle is an auxiliary firearm issued to law enforcement agencies. Comparison

between the twelve gauge shotgun and the 223 rifle shows TABC would benefit by authorizing the 223 rifle as an auxiliary firearm within its use of force continuum

## **DISCUSSION/CONCLUSIONS.**

This research paper attempts to examine whether or not there is a definable need for the 223 rifle with TABC. Also examined were the advantages/disadvantages of the 223 rifle as compared to the advantages/disadvantages of the currently approved shotgun. The stated hypothesis proposes that there is a need to augment the shotgun and TABC should approve the 223 caliber rifle. The findings did support that TABC needs to address its use of the force continuum in the area of approved firearms and adopt the 223 rifle. According to Feamster (2002), 223 offers superior stopping power is more accurate and has better terminal ballistics than the shotgun. According to Huntington, (1997), an officer's responsibility is to respond to incidents in the most effective manner possible. Farman (2001) states, 223 rifle offers accuracy past handgun range, reliability in penetrating body armor, usable by all officers, effective. Pollack (2001) states, over penetration is exaggerated. 223 has less risk of over penetration than a handgun. According to Graves (2004), officers carry a handgun because it fits in a holster and can be secured. Handguns were never intended to be the primary weapon in any armed encounter.

Cost of implementation should not be a factor, as it will be incurred on the individual Agents. They can furnish their own weapon within whatever guidelines are approved. Ammunition costs will be less opening avenues for exploration in less lethal usage of the shotguns. With the advent of homeland security measures, surplus M16A1 rifles

are available to law enforcement agencies. These 223 rifles can be converted from military application (full auto) to law enforcement application (semi auto) for a nominal fee. (Gray, 2004).

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AGENCIES INTERVIEWED FOR THE SURVEY AND DEPARTMENT CONTACT

Houston Police Department	05/2005
Harris County Sheriff Department	05/2005
Allen Police Department	04/2004
The Colony Police Department	04/2204,05/2005
The University of Texas at Austin	04/2004
Pflugerville Police Department	05/2005
Department of Public Safety	04/2004
Texas Alcoholic Beverage Commission	04/2004
U.S. Air Force Police	02/2005
Dallas Police Department	04/2003
Llano County Sheriff Department	05/2005
Kimble County Sheriff Department	05/2005
Junction Police Department	05/2005
Texas Parks and Wildlife	05/2005
Kerr County Sheriff Department	05/2005
Kerrville Police Department	05/2005
Gillespie County Sheriff Department	05/2005
Llano Police Department	05/2005
Comal County Sheriff Department	05/2005