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**Assessing the Value of Motorcycles
in Law Enforcement**

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ABSTRACT

With ever increasing traffic congestion, increasing fuel costs, increasing costs to purchase and maintain patrol cars and the increasing number of departments facing budget cuts, the motorcycle (as a traffic patrol unit) is relevant to contemporary law enforcement.

Using motorcycles to aid in traffic enforcement is not a new idea. Constables from 1900 to 1920 utilized the early version of motorcycles to help enforce the regulations imposed on the new motorized carriages known as cars. Those early bikes were not safe, fast or efficient. They did, however, effectively monitor the roadways and enforce the local ordinances. The police motorcycle has truly evolved over the one hundred plus years since they began to serve. The purpose of this research is to assess the motorcycle as a traffic enforcement unit. The advantages and disadvantages of the motorcycle will be examined to determine if the motorcycle will emerge as a dependable, cost efficient and effective choice for police departments.

The method of inquiry used by the researcher included: a review of journal articles, law enforcement data and papers, police magazines, and internet sites.

While the safety of the motorcycle across seasons and weather conditions continues to be debated, the advances in flashing lights, sirens, motor officer training, communication devices, and public awareness work to limit the number of accidents in which police motors are involved. The use of motorcycles by police departments is on the rise across the country. The motorcycle is a cost effective, efficient tool for police departments. Moreover, the researcher discovered that the motorcycle is a valuable police traffic enforcement tool.

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INTRODUCTION

All across the nation law enforcement agencies are continuously faced with new and unusual difficulties. Anywhere in the United States, police departments receive daily complaints related to traffic. Our roadways, which have not kept up with the large increase in populations, and traffic congestion, reveal these shortcomings. The general public is frustrated. This is tied to increased traffic deaths, accidents, road rage and general calls for police service. Agencies have been forced to come up with new and inventive ways to deal with each of those problems. Those serious issues combined with tighter and tighter budget restrictions, spread department personnel and resources very thin. In the past departments have attempted to answer these needs by increasing patrol vehicles on the road. The vehicle of choice is usually the standard automobile. The automobile has its own limitations. More often departments have begun to look at other time proven programs. The motorcycle has returned as one answer.

The purpose of this research is to assess the value of the motorcycle as a traffic enforcement unit. Is the motorcycle with both its many advantages as well as disadvantages a useful tool? The research will address the motorcycle as a police vehicle in several unique areas. Issues to be looked at will be on its value through economy of operation and maintenance, daily wear and tear and its life span. Research will also include the motorcycle's benefit as to its maneuverability, high visibility, quick accelerations, and its short turning radius.

The method of inquiry for this research will include the review of books, web articles, law enforcement periodicals, and journals. This research will be compared and

expanded upon by an existing in depth study on motorcycle usefulness as well as data gathered from the Round Rock Police department.

It is anticipated that law enforcement will recognize the usefulness, low cost and service value, and other overall benefits specific to a motorcycle. Law enforcement agencies will recognize that with today's current trend of budget cuts, traffic congestion, call loads, and growing population, the need of implementing new programs. The benefits associated with use of the police motorcycle will address several of these issues. Higginbotham (2003) concluded that the motorcycle will make a greater impact than any prior vehicle has made in a decade. The motorcycle has found a usefulness second to none (p. 58). The anticipated outcome of this research is intended to show that use of the motorcycle in the field of law enforcement is a perfect fit. The motorcycle's benefits of maneuverability, high profile visibility, low cost and versatility will serve its department and the general public well.

The implications of this research will affect law enforcement agencies and the public itself. It will give an agency, which is experiencing problems such as call response times, increasing call loads, high traffic congestion and budgetary issues, with an untapped and cost effective resource to consider. The agency will be able to review the research and use its findings to make well-informed decisions. The public will benefit by knowing that their departments are continuing to address important issues that affect their quality of life.

REVIEW OF LITERATURE

As mentioned many issues face our countries' police departments and cause a drain on the manpower and resources that the departments possess. Unable to solve these problems with increased funding, police departments are attempting to efficiently use capital and manpower to overcome these issues and serve their communities. One issue that faces those officers on patrol is traffic congestion. The Texas Transportation Institute (TTI) at Texas A&M University has studied extensively the traffic systems in the seventy-five of the nation's largest urban communities. The results for the 2002 Mobility Report were cited in the pamphlet for the American Road and Transportation Builder's Association. Some of the findings cited were that fifty-eight percent of the nation's roadways today are experiencing traffic congestion that is significant, and that traffic congestion is fully responsible for the waste of 5.7 billion gallons of motor fuel annually. A demographic statistic given in the pamphlet is that by 2020 the driving population will have increased by 21 percent from about 210 million to 256 million. The congestion is not limited to our largest urban areas. In a news release by TTI in November of 2005, it was announced that due to the increasing difficulties of traffic congestion that Bryan/College Station was experiencing the Transportation Appropriations Committee of the Texas State Congress awarded funds to the study of the traffic there. This was in hopes that the information gathered about the traffic congestion in that area would benefit mid size cities across the state. The need for a small, easily maneuverable, quick machine is more than apparent. That machine is the modern motorcycle. Illinois State Police began a new motorcycle program for traffic enforcement in 2006. Among the many reasons were the cost advantage of motorcycles compared to the state's

aging patrol units, the element of surprise when catching violators, and the fact that the National Highway Traffic Safety Administration had cited the superior maneuverability of motorcycles as an advantage especially in congested areas (Pantagraph, 2006).

Robert Genat (1999) states that motorcycles are most often the first on the scene of an accident. Once at the scene an officer can check on victims, call for medical help, tow trucks and then help direct traffic so that the others that arrive can do their jobs safely. According to the web site Motorcycle Police News (March, 2006) the number of police motorcycle units in the New Jersey area had increased over the span of the last fifteen years. New Jersey State Police Col. Joseph Fuentes made the decision to have motorcycles become a permanent part of the State Police. One of the reasons given was the motorcycle's quick response time in congested areas. A representative for Co. Fuentes gave an example of a motor officer responding to a fight at the Meadowlands in less than one minute. This is a feat neither a patrol car nor a bicycle could perform. The cars could not have maneuvered through the crowded area and bicycles would have taken much longer to arrive.

Another advantage for motor officers is increased visibility. From a motorcycle an officer has the advantage of being better able to see inside passing cars. Genat (1991) goes on to list observations by motorcycle officers such as spotting drugs, alcohol in open containers, and even a damaged ignition cylinder in a stolen car.

An important aspect to consider when assessing the value of the police motorcycle and its use to departments is cost. Cost effectiveness may be one of the motorcycle's strongest attributes. The current rise in gasoline prices has come up to be a high cost top line item. The news of continued rise in gasoline prices will bring even

the most skeptical law enforcement administrator looking to find better ways to save budget funds and keep operation cost down. The gas mileage of the motorcycle vs. the patrol unit is nearly double in favor of the motorcycle. The police motorcycle has a long history of proving itself to be more than a good investment but one that also holds value well and even when done with service brings in more than a patrol car. Lovell (2002) proclaims what he found about the value of law enforcement motorcycles. Lovell states “police departments were purchasing BMW motorcycles for \$17,000. The buy backs for the motorcycle with 60,000 miles or 3 year service life (which did not have to be maintained by BMW service) was 9,200”. The motorcycles would then be sold for upwards to \$12,000 dollars to the general public (p.134). According to current Round Rock Police Department data, the cost of a new patrol car with full police equipment except radio is approximately \$37,285.00. The unit after service with about 100,000 miles could at auction bring in around \$3000.00. This is in comparison to a typical new Honda Police Model motorcycle with police equipment for about \$18,500.00. It has life span of about three years or around 60,000 miles. Most police motorcycles bring in at auction around \$5000.00. (Round Rock Police Department, 2007)

In addition to motors being a less expensive investment, they are found to be very cost effective to maintain. The largest user of police department motorcycles in the United States is the California Highway patrol. In one effort to manage costs even more, BMW worked with CHP in order for them to purchase and own equipment such as emergency lights, sirens. Then CHP was able to install or transfer them from one motor to another at their own Motor Transport facility before the move into processor

controlled LED systems. Some long life components such as radio equipment are still recycled (Stevens, 2003).

While safety is always the top issue, most all departments have training courses and training requirements for their motor officers or will send them to certified in-service training classes. One such course is the California Highway Patrol (CHP) Academy in Sacramento, California. It is an honor to be chosen to attend the course. The course aggressively weeds out those who are not the most skilled for the job of being a motor officer. In some classes the number may be as high as fifty percent who do not pass the course. The technique they learn is called “enforcement riding.” The skills they learn and develop can save their lives. These training courses provide the officers with the skills and knowledge to be as safe as possible when out on a motorcycle (Hewett, 1986). The basic course’s hands-on riding patterns are taken from scenarios that the officer will face on a daily ride with others taken from emergency situations such as breaking and higher speed turns. Genat (1999) reveals that three-fourths of all motorcycle accidents involve a collision with another vehicle typically the other vehicle is a car. Most collisions occur because the driver of the car did not see the motorcycle. Studies from many states have consistently shown that most (85%) of motorcycle accidents are not the fault of the motorcycle’s driver. Drivers are taught to drive their motorcycles as if they were invisible and never assume the other driver sees them. The training rule of thumb is to always make direct eye contact with the other driver and always have a path of escape. Officers which patrol from a motorcycle are found to be more at risk due to their attention at times are on other things then just safe

driving. Officers' duties such as general patrol, looking for traffic and vehicle violations can cause constant distractions.

METHODOLOGY

The research question to be examined considers whether or not police departments would find it feasible and an asset to implement a motorcycle division. The superior maneuverability and speed of motorcycles has been established. The cost effectiveness of motorcycles has been shown to be superior to that of the patrol car. The question remains as to whether or not motorcycles with their safety issues still remain a viable choice for departments who are looking to expand their traffic enforcement options. One question remains although motorcycles have many advantages, are motorcycles safe enough to justify using them for traffic enforcement?

The researcher hypothesizes that with some of the safety concerns motorcycles face they still stand out as an asset to the police enforcement. The method of inquiry will include an analysis of various articles and studies pertaining to motorcycle safety and usefulness.

FINDINGS

While the many advantages of the motorcycle have been explored, the overall safety of the motorcycle begs closer examination. A large part of evaluating the motorcycle for use in the traffic enforcement arena involves analyzing the risk and safety factors. The National Law Enforcement Memorial reveals the third leading cause of death in law enforcement to be police motorcycle accidents. Automobile accidents and shootings are the first and second leading causes of death in law enforcement (Polan, 2001). Polan goes on to state that it is of extreme importance to have thorough

motor training courses for motorcycle police officers. The Hurt Report done in 1981 was an extensive study on motorcycle accidents. The study focused on civilian accidents and determined the leading cause of crashes to be over brake and skid the rear wheel and under brake the front wheel. The leading causes for single vehicle accidents was the error of slide out and fall due to over braking on a curve usually due to excess speed or under-corning. In an article published in Motorcycle Consumer News (January 2000) Dr. Hurt expressed that he felt those results were still valid. Dr. Hurt referred to work he has done with police departments investigating police motorcycle accidents. He commented that while police motor officers often get very high quality training, many of the same mistakes are made in professionals as civilians. Polan (2001) goes on to cite two studies done by the Institute of Police Technology and Management in 1984 and one by Polan himself in 1998 that both revealed rider error to be a factor in over 50 percent of the reported crashes. The causes were listed as improper braking, failure to countersteer and failure to negotiate a curve. These results reinforce the findings of the Hurt Report. Polan recommends training to be frequent and on going. He also calls for vehicle stop training for motor officers as traffic enforcement is the main duty of motor officers.

Departments with successful motorcycle units such as those in California, New Jersey and Minnesota have thorough training programs. They have also started with a few motor units then re-evaluated months later to see if the program should be continued and/or expanded. Minnesota State Patrol just graduated their first class of motor officers since 1948. These officers completed two weeks of training and were

outfitted with handlebar cameras, and helmet wireless communication systems (Vascellar, 2007).

One of the most challenging and complete law enforcement training courses in the world takes place at the Northwestern University Center for Public Safety. It is a joint effort by the center and Harley-Davidson's Police and Fleet Sales Division. More than 72 hours of the 80 hour program is spent on the bikes. At the end there is an on bike exam which tests aspects such as high-speed braking. The course is one of the most challenging and many comments on the extreme difficulty of mastering the class (Van Dyke, 2004).

Another measure to increase safety is being instituted by the Los Angeles Sheriff's Department and the Los Angeles Police Department. In a joint measure, they have set up a system by which to assess police motorcycles. This is a safety measure that has been done for over 50 years with police cars by those agencies. Areas in which the motorcycles are being evaluated are handling, acceleration, fuel mileage, brake tests, tire evaluation and basic motorcycle patterns (Bellah, 2006).

On July 7, 2007, motor officer Wes Hardy died while patrolling in Plano, Texas. Officer Hardy was the first police officer to die in the line of duty in Plano since 1920. He is survived by his wife and three year old twin daughters. Fellow officers, police leadership and community members remember Officer Hardy for his upbeat attitude and complete professional service (Eisere, 2002). The last person he stopped for speeding wrote a long letter extolling Officer Hardy's kindness and positive manner while giving him a warning about speeding which was displayed as part of a memorial to the fallen officer at the Plano Police Department. Just one death of a police officer in the line of

duty is too many. The department, motorcycle manufacturers and the public in general must work together to keep these officers as safe as possible. Advances in technology, advances in training must be current and on going. Police motorcycles are valuable tools and an asset to the departments and publics they serve but like all avenues of law enforcement every effort at safety must constantly be strived.

DISCUSSION/CONCLUSIONS

The problem or issue examined by the researcher considered whether or not motorcycles as traffic enforcement tools are viable and beneficial to law enforcement agencies. The issue of safety was closely examined.

The purpose of this research was to review multiple articles, journals, internet magazines and sites to asses the modern motorcycle as a useful police tool.

The research question that was examined focused on whether or not motorcycles with their advantages and their safety concerns could still be a viable option for law enforcement agencies to utilize to help with current conditions such as congested roadways, reduced budgets and strains on manpower.

The researcher hypothesized that the motorcycle is a viable and beneficial tool for law enforcement agencies to utilize for traffic enforcement even in light of safety concerns.

The researcher concluded from the findings that the motorcycle stands out as an increasingly popular choice for police departments across the nation. The cost effectiveness, ease of maneuverability, and increasing safety measures empower the modern motorcycle to rise up as a stellar law enforcement tool.

The findings of the research did support the hypothesis. Although there are safety concerns as with any vehicle, automobile or motorcycle, the benefits to law enforcement coupled with proper training outweigh the risks.

The study of motorcycles as an effective law enforcement tool is relevant to contemporary law enforcement because more and more areas of our country are being plagued with traffic congestion. Traffic congestion is not just limited to large urban areas anymore. Overcrowded roadways are now issues that mid sized areas and even some small areas have to endure. The other effective tool is over Budget restraints that are facing more and more law enforcement agencies. The tax base with the ever growing general operating budgets has become more a balancing act with every department of city, county and state government is competing for a share of the limited funds available. Specialized task forces and other department focuses are spreading manpower thin. These concerns are forcing more and more police departments to do more with less.

Police departments and the general public stand to be benefited by the results of this research as it clarifies the issues that face the motorcycle's role in the law enforcement arena. The response time, the ease of maneuverability, the low cost of operation impact not only the departments that are served by these vehicles but the communities at large.

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