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LAW ENFORCEMENT

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Introduction

Police helicopters have been in use since the mid-1960s. Their use at first was questioned because the cost of helicopter operations is quite expensive for a police department. However, the usefulness that the helicopter provides a police department will be illustrated throughout this paper. Some of its current uses include: (1) surveillance; (2) emergency response; (3) backup to patrol units; (4) high speed pursuits (5) show of force; (6) special weapons and tactics (SWAT) team insertions; (7) search and rescue (SAR); and (8) terrorist response. The possibilities of the helicopter in use today and in the future are limitless.

The purpose of this paper is to highlight some of the studies conducted on the effectiveness of police helicopters and their contributions. Helicopters, because of their initial cost and maintenance, are not cheap to operate. They are more expensive to operate than an airplane, especially turbine powered helicopters. However, their contributions to society are invaluable.

Several examples of the helicopter's effectiveness in the US and abroad will be discussed. Particular recognition will be given to a study conducted in Calgary, Canada with comparison to a neighboring city, Edmonton. This study will expose results that indicate the helicopter has not only been an effective tool for law enforcement but it also has the potential to deter crime.

Lastly, newer technology will be discussed in helicopter advancements and also equipment used by police helicopters. One of the main criticisms about helicopter operations, from the community that it serves, is its noise nuisance. Newer technological advancements will be discussed in ways to lessen the noise nuisance of police helicopters. However, the noise is a by-product of the police helicopter and this paper suggests that the helicopter is in fact an effective crime fighting tool in today's criminal justice system.

Historical Overview

Lakewood, California 1966

The first recorded study on the effectiveness of police helicopters and particularly their usefulness on deterring crime was done in 1966 in Lakewood, CA (Whitehead , 2001, p. 8). Lakewood, at the time, was a city of 87,000 people and the study compared crime rates in Los Angeles, a city that had 7 million people (2001 p. 8). Lakewood used helicopters to assist ground police on patrol and at the time; Los Angeles did not. Results from this study “indicate[d] that the frequency of certain crimes decreased in the City of Lakewood, while they increased in Los Angeles, County, in the year of the helicopter patrols compared to the previous year” Whitehead (2001, p. 9). During the time of the helicopter patrols, 1965-1966, the following results were recorded:

- Actual Major Crimes decreased by 8% in Lakewood compared to +9% in LA
- Crime Rate/100,000 pop. decreased by 11% in Lakewood compared to +8% in LA
- Robberies decreased by 6% in Lakewood compared to +22% in LA
- Burglaries decreased by 7% in Lakewood compared to +9% in LA (2001 p. 9).

Kansas City, Missouri 1969

Another study of deterrence was conducted in Kansas City, MO in 1969. This time the study wasn't compared to a nearby city. Also, unlike the Lakewood study, the Kansas City study observed only three months of helicopter patrols during a twelve month period as opposed to a twelve month helicopter patrol studied in Lakewood. The following results were found:

- Crime decreased 13.7% in June compared the previous five months
- Crime decreased 7.4% in July compared the previous six months

In August, the patrol area changed but indicated:

- Crime decreased 3% compared to the previous seven months

In September, the patrol areas was again revised but indicated:

- Crime decreased 7.6% compared to the previous six months (Whitehead , 2001, p. 10)

The study also concluded that the number of crimes in the patrol areas decreased 13.5% as compared with those crimes which occurred in the first six months (2001 p. 10).

Los Angeles, California 1969

In Los Angeles in 1969 a study was conducted to evaluate the effectiveness of helicopter patrols. The study was conducted in two of Los Angeles' 17 divisions; a low crime division and a high crime division (Whitehead , 2001, p. 10). Unfortunately, there was not a time given as to how long the study was conducted, but the following table indicates that the helicopter was effective in both divisions during its patrol.

Number of Calendar Quarters in which Actual Occurrences were Significantly Above or Below

Prediction

Division	Robbery	Burglary	Theft	Auto Theft
Low Crime	-2	0	0	-1
High Crime	-2	0	-4	-3

Note. From "The Eye in the Sky: Evaluation of Police Helicopter Patrols," by P.C. Whitehead, 2001, TR-01-2001R, p. 11. Copyright 2001 by

Canadian Police Research Centre. Adapted with permission.

This table illustrates that the police helicopter used in Los Angeles did have effect on crime reduction. It also shows, however, the most crime reduction came from the high crime area.

Long Beach, California 1970

After examining the effects of the helicopter study conducted in Lakewood, CA, Long Beach decided to purchase a full-time helicopter. The crimes that the helicopter patrols were intended to deter were robbery, burglary and auto theft. The results of the helicopter patrol were as follows: total crime decrease by 3.2%; robbery -7.3%; burglary -0.1%; and auto theft -6.6%. The total number of crimes that fell into the category of crimes that wasn't expected to be deterred by the helicopter patrol actually increased by 8.6% (Whitehead , 2001, p. 13). It could

be assumed that with crime rising in general, the helicopter patrol actually deterred the types of crime anticipated.

Los Angeles, California 1972

Another study was conducted in Los Angeles by the National Aeronautics and Space Administration (NASA) in 1972. The conclusions that NASA revealed were, "...the likelihood of police arrests rose to 40% when a police helicopter was assisting in the apprehension of a fleeing felon, as opposed to an 18% arrest rate ... where police helicopters were not being used" (Marz, 2000, p. 8).

Columbus, Ohio 1972

In Columbus, Ohio in 1972, three helicopters were used for a test that lasted six months. The tests were to be conducted in Columbus' 15 precincts. Eight of the precincts were to have the helicopters on an "on call" basis (Whitehead , 2001, p. 14). The rest of the precincts are assumed to have constant patrol. The results, as given by the city of Columbus, were very good; however, the Canadian police research center (CPRC) results were a little more conservative based on their statistical analysis. Although both reports did show a deterrent effect created by the helicopter patrol. The results from CPRC were as follows: robberies decreased more in the comparison area (22.2%) than in the area that received helicopter patrols (8.6%); however, burglaries decreased more in the experimental area (17.2%) than in the comparison area (9.9%) and auto theft decreased (9.4%) in the experimental area while it was increasing (28.8%) in the comparison area (Whitehead , 2001, p. 15). The helicopter patrol did not show a deterrence in robberies, however, it did show a significant deterrence in burglaries and especially in auto thefts.

Nashville, Tennessee 1978

In Nashville, TN in 1978 another study was conducted to examine what type of impact the helicopter patrol had on residential burglaries. The city was divided into 33 police zones and the

patrol chief decided on what zones were to be patrolled by air based on the number of burglaries per zone. The study was conducted in phases; there would be a 12 day patrol followed by an 18 day reset to baseline and then 12 more days of patrol followed by 18 more days to reset to baseline. The results of the patrols were: the baseline periods averaged 1.28 burglaries per day and the experimental periods 0.33 per day (Whitehead , 2001, p. 15).

Also worth noting, the average number of burglaries in the target zones was 2.8 per day and during the baseline periods averaged 1.28. This would appear to be a 54% decrease (Whitehead , 2001, p. 15).

Nashville, Tennessee 1980

Two years following the first study in Nashville, a second one was conducted. This time the target areas would be divided into high density areas and low density areas. The period of helicopter patrols in the high density areas were 9 and 10 days; the low density areas were 14 and 21 days. The report results were, "...the average number of burglaries per day decreased in the areas of high density, compared to the baseline and returned to baseline days, but that they, in fact, increased in the areas of low density... the deterrent value of helicopter patrols exists in high density areas, but not in low density areas" (Whitehead , 2001, p. 16). It would appear that once again in Nashville, the helicopter patrols were effective in deterring crimes in the higher crime areas assuming that the high density areas were the higher crime areas.

England 1988

A study conducted by the Wiltshire Constabulary in England examined the aerial patrol on a cost effective scale as opposed to a crime deterrent scale. This study included fixed-wing (airplanes), rotor-wing (helicopters) and foot patrol officers. The study was to determine if aviation assets were cost effective. The following table illustrates the findings:

Search Party	Time to Search 1 Square Mile	Cost to Search 1 Square Mile
Bolkow 105 (helicopter)	12 minutes	105
Optica (fixed wing)	18 minutes	27
Islander (fixed wing)	22 minutes	77
Persons on Foot	454 hours	6946

Note. The cost is in British Pounds, today's conversion rate is 1 GBP = 1.83 USD.

Note. From "The Eye in the Sky: Evaluation of Police Helicopter Patrols," by P.C. Whitehead, 2001, TR-01-2001R, p. 17. Copyright 2001 by Canadian Police Research Centre. Adapted with permission.

This study indicates that helicopters are, in fact, an efficiently effective tool used for law enforcement. The largest efficiency is on saving manpower and time. Time can be very critical following a crime in the apprehension of a criminal. It could also be very critical in the search of a victim or in the role of a search and rescue mission. One of the greatest benefits that this study reveals is that the helicopter can be used to search an area with only two police officers onboard and thus relieve other officers to conduct their daily duties (Whitehead, 2001, p.17).

Effectiveness of Police Helicopters in Canada

In 1999 a study was completed at the University of Toronto. The emphasis of this study was to demonstrate the effectiveness of the police helicopter as a tool in deterring crime and helping police with their clearance rates (Marz, 2000, p. 2). The study was conducted in Calgary, Canada and used Edmonton, Canada as a comparison city. Both cities are approximately the same size but Calgary used a police helicopter to help with its patrols and Edmonton did not.

Before discussing the effectiveness of the police helicopter in Calgary, it is important to list a couple of fact findings. In 1968, "Operation Sky Night" was adapted to assist the New

York City Police Department with night patrolling using a helicopter. A finding from the study conducted on “Operation Sky Night” found that crime decreased by 11% at night where the police helicopter was patrolling and also revealed that crime actually went up by 8% in areas where the police helicopter was not used (Marz, 2000, p. 7).

Another study was conducted by the National Aeronautics and Space Administration (NASA) in Los Angeles, CA and found that, “districts where police helicopters had patrolled regularly the incidents of robberies, automotive thefts and other types of thefts had decreased dramatically” (Marz, 2000, p. 8). It also concluded that when the police helicopter was used to assist ground officers, the apprehension rate went up to 40% as opposed to 18% (Marz, 2000, p. 8).

The objectives of the police helicopter are twofold, one is to assist the police officers on the ground when a crime has already occurred and the other is to deter crime from ever happening. In Calgary, Canada, the city purchased a McDonnell Douglas 520N NOTAR turbine powered helicopter to assist the police and apply the aforementioned objectives. A brief statement about the helicopter is that it comes equipped with forward looking infrared (FLIR), a Nightsun very powerful search light and the helicopter itself is built without a tail rotor which makes it much quieter. The advantages of a no-tail rotor (NOTAR) helicopter will be discussed later.

The typical response time of the helicopter was two minutes to be on scene assisting the ground officers. This was meeting the first the objective, the second objective was being met when it was noticed that some burglaries and break-ins were being conducted when ever the helicopter had to land for refuel. It would appear that the helicopter was in fact acting as a deterrent. The problem is the helicopter acting alone, left the city “vulnerable” when it landed for refuel. This could be solved by providing another helicopter and having it airborne when the other is refueling (Marz, 2000, p. 11). Having two helicopters not only provides a helicopter airborne when one is refueling but it also provides a greater chance of having a helicopter when the other is grounded for maintenance. Helicopters, unlike airplanes, need more maintenance

because of their complex design. There are many more moving parts on a helicopter compared to an airplane and over time, these parts must be replaced or inspected. Also, helicopters are subjected to greater “dangerous” working environments such as unimproved fields for take-offs and landings or exposed to “bird strikes,” the unintentional act of hitting a bird in flight, more often than their fixed-wing (airplane) counterparts.

Law enforcement units in the U.S. have reported that when response time is decreased from four to two minutes for crimes where a high probability of flight from the crime scene is most likely, then the probability of apprehension is increased by 100% (Marz, 2000, p. 12). In Calgary, the response time was about three minutes. During this same time, 1995 to 1996, the response time in Edmonton by ground vehicles was under fourteen minutes (Marz, 2000, p. 12). This is a large gap considering the lead that the suspect would have on the officers. Not only would the physical presence of the helicopter being on the crime scene prove beneficial but also having it there faster would allow the airborne officers to assess the situation and then call for back-up if needed or conserve the ground officers for the next call that is waiting.

Results from Canada

Having now discussed the importance of the police helicopter, the following results highlight the effectiveness of the police helicopter in Calgary, Canada. The results were gathered from Canada’s Uniform Crime Reports (UCR) and compare Calgary (which has a police helicopter) to Edmonton which does not have a police helicopter (Marz, 2000, p. 22). The period used for comparison was from 1990 to 1994 (before Calgary bought the helicopter) and 1995 to 1997 (after Calgary bought the helicopter). The comparison is made by measuring the crime rates before and after the helicopter purchase.

Comparison of Calgary to Edmonton Based on UCR Reports

The trends in break and enter offenses decreased by 15% for Calgary and there was no change for Edmonton. However, the clearance rate was 4% higher in Calgary compared to Edmonton (Marz, 2000, p. 22).

The trends in motor vehicle theft were quite significant in Calgary compared to Edmonton. The trend of vehicle theft in Calgary decreased by 80% compared to an increase of 17% in Edmonton. There was no significance in clearance rates between both cities following the use of the helicopter; they both increased their clearance rates by about 50% (Marz, 2000, p. 23).

The trend in robbery statistics for Calgary were decreased by 27% while Edmonton increased by 5%. The clearance rates for Calgary increased by 16% compared to Edmonton which only increased by 12%. What is also noteworthy is that while Calgary's robbery rates decreased by 27% when they added the helicopter, Canada's robbery rate as a whole only decreased by 1% during this same time (Marz, 2000, p. 24).

Comparison of Calgary to Edmonton Based on Crimes per 100,000 Population Scale

The number of break and enter rates for Calgary decreased by 5% and increased by 31% for Edmonton. Although not a significant difference between the two cities, the clearance rate for Calgary went up 30% and 27% for Edmonton (Marz, 2000, p. 25).

The trend in motor vehicle theft rate decreased by 67% in Calgary and increased by 25% in Edmonton. However, the clearance rate for Calgary was only increased by 33% and 49% for Edmonton. It should be noted though that during this period Calgary's motor vehicle theft rate was 40% below national average (Marz, 2000, p. 26).

The trend for robbery rates decreased by 20% for Calgary and increased 9% for Edmonton. The clearance rate for Calgary was 20% higher and only 8% for Edmonton (Marz, 2000, p. 27).

The trend in municipal police departments in Calgary was only an increase in personnel by 1% and in Edmonton it increased by 18%. The population per police officer during this period was decreased by 4% for Calgary and an increase by 13% for Edmonton. What should be noted is that “Calgary has always had a significant higher population per police officer than Edmonton, even though Edmonton had a greater increase in its police personnel from 1996” (Marz, 2000, p. 31).

Based on UCR reports from Canada, the number break and entry rates between Calgary and Edmonton was a 12% difference. The difference in the number of motor vehicle thefts was 63% and the difference in robberies was 22%. With these significant differences between the two cities it can be assumed that the police helicopter made the difference.

Calgary maintained a significantly less number of police personnel compared to Edmonton, however, Calgary’s crime rates had dropped significantly compared to Edmonton. Also, the clearance rates were higher for Calgary than that of Edmonton during the study. It can then be suggested that the police helicopter’s use provided an apparent contribution to the police force in Calgary. It should also be considered hard to believe that these results could have happened without it being for the police helicopter.

Police Helicopters Making Pursuits Safer

When police officers get into high speed pursuits, this can provide for an extremely dangerous situation for the general public, the officers involved and the suspect. Many police departments have restrictions on high speed pursuits. For example, Baltimore has a discouragement policy for vehicle pursuits and Miami-Dade County has a policy to only chase violent felons (Alpert, 1998, p. 1). When police officers do not want to let fleeing suspects escape because of policies restricting them from pursuing suspects in their police vehicles, they can choose to call in a police helicopter to assist with the pursuit.

Normally, when a suspect starts to flee at a high speed, the police officer will slow down and turn off all emergency equipment; this leaves a strong probability of losing the suspect. If a helicopter unit is available, the officer will call for its assistance and stay in radio contact with the helicopter. While the helicopter is following the suspect, sometimes unbeknown to the suspect, the police officer in the ground vehicle is waiting for the opportunity to resume the chase and or make an arrest when the suspect stops. This is the case in Miami-Dade County and Baltimore, the two cities in which Alpert conducted his studies.

Most of the time, the helicopters will fall back and pursue the suspect passively, unless the suspect is driving erratically, running through intersections or endangering people. In any of these cases, the pilot or airborne observer may take one of the following actions: (1) communicate to the ground units that the subject is accelerating, fleeing activity; (2) make the suspect aware of the helicopter's presence in hope that the suspect will cease fleeing; and (3) use the searchlight to illuminate the suspect's position during night pursuits (Alpert, 1998, p. 2).

The helicopters are not permitted to shine the spotlight into the fleeing suspect's eyes but instead use the spotlight to illuminate the suspect's vehicle and make it easier for other police on the ground to see the vehicle. Also, the spotlight serves to alert the general public of the danger and also illuminates the vehicle should its lights be turned off during the pursuit, avoiding detection. Not only do the helicopters of the two cities have very powerful spotlights but also radios, FLIR and cameras (Alpert, 1998, p. 2). With the use of all this equipment, the helicopter serves as an invaluable tool for officers in a pursuit.

The study by Alpert concluded that out 89 pursuits in Baltimore, there were 74 arrests made; that is an 83% success rate. The study also confirms that in Miami-Dade County, out of 43 pursuits conducted by a helicopter, there were 39 arrests made; that is a 91% success rate. The most common pursuit that a police helicopter was engaged in was that of a stolen vehicle and the second most common was that of a robbery (Alpert, 1998, p. 2). The following table indicates the effectiveness of the pursuit helicopter.

Pursuits Involving Helicopters

Site	Year	Number	Arrested	% Success
Baltimore	1995-1996	89	74	83
Miami-Dade	1996	43	39	91

Note. From "Helicopters in Pursuit Operations," by G.P. Alpert, 1998, Research in Action, NCJ 171695, p. 2. Adapted with permission.

There were many pursuits that didn't involve ground crews until the suspect had already left the fleeing vehicle (Alpert, 1998, p. 3), this would also allow the helicopter to provide its assistance even more by keeping an "airborne eye" on the suspect until the ground crews could make an arrest. As Alpert states, "...the data indicate that when a helicopter became involved in a pursuit, the most likely outcome was an arrest" (Alpert, 1998, p. 3).

During this study, a sample was taken of seven pursuits. Five of the pursuits resulted from stolen autos and six resulted in "bail-outs" (procedure that suspect use; they leave the vehicle and continue evasion on foot). The ground patrol units were able, in most cases, to turn off all emergency equipment and follow at a safe distance. The helicopter was able to continue following the suspects and report important information back to the ground officers like whether or not the suspect had a weapon. The information, as well as the continued surveillance that the helicopter crew was able to provide, was very helpful for public safety and led to the quick arrest of the suspects (Alpert, 1998, p. 3).

Technology Used by Police Helicopters

Probably one of the greatest technological advantages of the police helicopter is the helicopter itself. The aircraft provides one or two sets of eyes to see from an angle what ground police officers cannot. They can see around corners, see further down roads where suspects may be traveling, have greater fields of view, and see over obstacles that ground officers are limited by. The newer helicopters today have greater speeds and better "all weather" technology than

older helicopters. Newer technology is allowing helicopters to fly faster and safer by advances in rotor blades and rotor systems. Along with technological advances in the helicopter itself, newer avionics (aviation electronics) are allowing helicopters to navigate safer in day and night time scenarios. Also, advancements like global positioning systems (GPS) are allowing helicopters to get on the scene where needed faster. This type of system would allow officers on the ground to call for assistance, give a street address, and the helicopter crews could pinpoint where the officer is and be overhead in a shorter amount of time.

Another advancement in helicopter technology is the no-tail rotor (NOTAR) system. All helicopters, with the exception of helicopters with more than one main rotor system, must have a tail rotor. The tail rotor allows controlled flight by providing anti-torque which opposes the main rotor system. The tail rotor system, although needed, provides most of the noise produced by helicopters and noise complaints are frequent with police agencies. Greater community support could be gained for police aviation units if the noise that they produced was decreased. The NOTAR system which is only on McDonnell Douglas Helicopters like the MD520N discussed earlier in Calgary, Canada is much quieter than those on conventional helicopters. NOTAR helicopters do not use a tail rotor; instead they use a pressurized tail boom to provide anti-torque for the helicopter. Because the helicopter doesn't have a tail rotor, it is much quieter than conventional helicopters thus being friendlier to the community and more of a surprise to suspects. The NOTAR helicopters are the quietest helicopters on the market today (Eurocopter, 2004, p. 1).

Along with advancements in helicopter technology, advancements in avionics have also been useful for ground officers. Equipment such as forward looking infrared (FLIR) can spot people based on their body heat. This could be very useful for suspects that retreat to woodland areas in order to evade capture or also assist ground units in searching for children who are lost or had been abducted. This could also provide use in searching for Alzheimer patients that may be wandering around in rural areas.

Other advances in technology include the night vision goggles (NVG). These devices use ambient light and amplify it over 10,000 times which allow aviators to see in the dark. This has made flying at low levels at night safer for helicopter crews and has also aided pilots/tactical flight officers (TFO) in searching for suspects in low lit areas. Although not a perfect system to make day out of night in terms of vision it does, however, give the helicopter crews a greater advantage at night time.

Lastly, one great advantage that the helicopter has provided officers on the ground is the powerful “Night Sun” spotlights. This spotlight can serve by identifying a suspect hiding in the dark or illuminate an area for the ground officer’s protection. It can also be used in pursuits to follow fleeing autos and provide an alert for civilian motorists about oncoming danger (Alpert, 1998, p. 2).

Conclusions

In accordance with Whitehead (2001, p. 95), “The operational benefits of the helicopter policing stem directly from the unique dimensions that it provides: aerial perspective, speed, mobility and ability to light and area. It facilitates many types of searches, saves time, adds to citizen and officer safety and increases apprehensions.” Also according to Whitehead (2001, p. 92), it is claimed that there was a concern about noise complaints coming from the community in which the helicopter operated in and suggested that the helicopters operate at an altitude of 1000 feet or higher. This altitude could be too high to be effective and would be suggested that police departments turn to newer technology and purchase quieter helicopters like those equipped with NOTAR. This would allow the police the fly lower on the scenes for which they have been called to and should also allow them to fly in weather that has lower cloud ceilings. By having lower clouds, the police may not be able to fly at higher altitudes but with helicopters that are less noisy, pilots should be able to fly lower and not be of a nuisance to the community.

The results that came from Marz's (2000) study illustrated the fact that the police helicopter did indeed lower the crime rate in Calgary as compared to Edmonton and found the following:

Therefore based on this data, it can be stated that while Calgary was operating with fewer police personnel, Calgary still managed to surpass both Edmonton's actual number of offence reductions and Edmonton's increase in clearance rates where the three crimes were concerned. Hence, in view of this information, Calgary's pre-post reform differences (when compared to Edmonton) need to be regarded as more statistically significant because the police helicopter treatment effect must have been the cause why Calgary managed to produce such high pre-post differences in all the categories of crime. (p.32)

The results that were found in Marz's study cannot be discounted because her study based on two cities in Canada approximately the same size and in the same province had quite a significant difference in crime after the implementation of a police helicopter in Calgary.

The police helicopter has proven itself to be a remarkable tool in not only making dangerous pursuits safer but also contributing to an incredible apprehension rate. Police helicopters can provide a platform to observe, track and illuminate people or places on the ground (Alpert, 1998, p. 3). The police helicopter can be provided as an excellent backup for ground forces and also provide another prospective of the scene that the grounds officers can't get (Alpert, 1998, p. 3).

Police helicopters have made pursuits much safer in allowing ground units to slow down, turn off their emergency equipment and relieve some of the anxiety of the fleeing suspect which could in turn lead to a safer pursuit. However, as easy as the helicopter can be used to follow a fleeing suspect it can also be used as a "show of authority and a show of force" (Alpert, 1998, p. 3) which has the potential of reducing the drama in a tense situation. This would be a very useful tool in breaking up a riot that could become violent and uncontrollable in a short amount of time.

Police helicopters are not always credited with their usefulness, however, their usefulness has been very important to police departments. Helicopter operations can cost a police

department millions of dollars which operate on a budget that is very tight; however, according to Lt. Scott Dunklee of Prince George County in Maryland, “Prince George’s two helicopters responded to more than 4,000 calls in 2001 and were the first to arrive on the scene 80% of the time, with an average response time of 2 min[utes]” (Croft, 2002, p. 11). Croft also states, “Dunklee, the unit’s commander, said teams were credited with more than 200 criminal arrests, the seizure of more than \$5 million in drugs and finding 54 stolen vehicles”(2001, p.11).

In Huntington Beach, CA, the HBPD found that, “its helicopters were ‘first on the scene’ 97 percent of the time in 2000,...participated in 152 felony arrests, 406 misdemeanor arrests and 440 traffic citations” (Richfield, 2001, p. 45). Not only were the helicopters the first on the scene in most of the calls and assisting ground units but also, “...credited with breaking up 689 ‘potential crimes’ while making possible the cancellation of 575 ground unit call-outs...[and] responded to 3,789 radio call in total last year... [and] on scene 808 times when no police cars were available...[and] usually within 60 seconds of the call” Richfield (2001, p. 45). It would be very difficult to rationalize the importance of the helicopter’s contribution when comparing it to its accomplishments in Prince George County and Huntington Beach.

The helicopter has been verified effective in Calgary, Canada and has demonstrated its use in making policing safer in Baltimore and Miami-Dade. It has also illustrated its variety of techniques in which it can fight crime or be a very invaluable tool for police officers to use. Its only limitations in the future are that of the imaginations of the aviators who fly them.

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