Agenda – Council – January 27, 2010

Report – Standing Policy Committee on Protection and Community Services – January 11, 2010

Item No. 4 Establishment of a Winnipeg Police Service Flight Operations Unit (Helicopter)
eFile GF-2

STANDING COMMITTEE RECOMMENDATION:

On January 20, 2010, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Protection and Community Services and submits the following to Council:

1. That subject to approval of new incremental funding from the Province of Manitoba for all ongoing annual operating costs, estimated at $1.3 million in 2010 plus cost increases thereafter, the Winnipeg Public Service be directed to procure a fully-equipped Flight Operations Unit together with a hangar to house the unit.

2. That subject to confirmation of funding from the Province of Manitoba as noted above:

    A. The associated annual operating costs and provincial funding be included in the 2010 to 2012 Operating Budget, estimated at $1.3 million in 2010; and

    B. The expenditures be authorized in 2010 prior to the adoption of the 2010 Operating Budget as a first charge, in accordance with Subsection 288(2) of The City of Winnipeg Charter to allow the Winnipeg Police Service to begin to implement the new Flight Operations Unit.

3. That the Chief Administrative Officer be delegated the authority to award the contracts for the acquisition of the Flight Operations Unit (helicopter), hangar, and all related operational equipment. This authority may not be further delegated.

4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Protection and Community Services – January 11, 2010

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On January 20, 2010, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Protection and Community Services and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On January 11, 2010, the Standing Policy Committee on Protection and Community Services concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

ISSUE: THE ESTABLISHMENT OF A WINNIPEG POLICE SERVICE FLIGHT OPERATIONS UNIT (HELICOPTER)

Critical Path: Standing Policy Committee on Protection and Community Services – Executive Policy Committee - Council

AUTHORIZATION

Author	Department Head	CFO	CAO
Patrol Sergeant Dave Dalal Constable Nick Paulet	Chief Keith McCaskill	M Ruta	M Ruta, Acting CAO

RECOMMENDATIONS

1. Subject to approval of new incremental funding from the Province of Manitoba for all ongoing annual operating costs estimated at $1.3 million in 2010 plus cost increases thereafter, that the Public Service be directed to procure a fully-equipped Flight Operations Unit together with a hangar to house the unit.

2. Subject to confirmation of funding from the Province of Manitoba as noted above:
a) that the associated annual operating costs and provincial funding be included in the 2010 to 2012 Operating Budget, estimated at $1.3 million in 2010; and
b) that Council authorize expenditures in 2010 prior to the adoption of the 2010 Operating Budget as a first charge, in accordance with Subsection 288(2) of the City of Winnipeg Charter to allow the Winnipeg Police Service to begin to implement the new Flight Operations Unit.

3. That the Chief Administrative Officer be delegated authority to award the contracts for the acquisition of the Flight Operations Unit (helicopter), hangar, and all related operational equipment. This authority may not be further delegated.

4. That the Proper Officers do all things necessary to implement the intent of the foregoing.

IMPLICATIONS OF THE RECOMMENDATIONS

A police helicopter is an enhancement to police resources that would produce many tangible and intangible benefits to the Police Service and to the citizens of Winnipeg, as described in this report.

Additional positions would be required and are included in the budget estimate.

The initial capital cost to purchase the helicopter, a hangar to house the unit, and all related operational equipment is estimated to be $3.5 million. The annual operating budget is estimated at $1.3 million in 2010 for the purchase. The implementation of the Flight Operations Unit is contingent upon provincial new incremental funding for annual operating costs, estimated at $1.3 million in 2010 plus cost increases thereafter.

HISTORY

In 2009, The Winnipeg Police Service completed an in-depth study into the benefits of a Flight Operations Unit (FOU) by examining its closest comparators, reviewing relevant research, and applying the benefits seen elsewhere to the Winnipeg model.

While the exploration of a helicopter-equipped WPS Aerial Support Unit dates back to 1978, the notable research and recommendations occurred as follows:

1998

- Report prepared by WPS Research and Development Unit recommending a rotary wing project.
- Result: no action taken

2002

- Citizen initiative of registered charity “Take Flight Winnipeg”
- WPS conducted equivalent research, resulting in a report submitted to Executive Policy Committee in 2003 recommending that the Service endorse the initiative of Take Flight Winnipeg
- Result: Take Flight Winnipeg ceased to operate in 2003. No action taken.

In Canada in the last 10 years, a number of the large urban Police Services, currently either operate or have regular and reliable access to the use of an Flight Operations Unit, in particular a helicopter. Cities utilising this craft in a patrol capacity include Lower Mainland RCMP (2000), Calgary (1995), Edmonton (2001), York Region (2000), Durham Region (2000), London (tested in 1995) and Montreal (on going with QPP). Many of the units have moved to multi-aircraft operations including Calgary (2007), Edmonton (2009) and Greater Vancouver Lower Mainland (2008-RCMP).

As reported by those helicopter-equipped Services, significant benefits have been realized. These include; pursuit management and related liability reduction, increased public safety, officer safety, higher clearance rates, freeing up of other 'on the ground' resources and the ability of the aerial support to serve as a 'force multiplier' (a tool that allows 1 officer to accomplish the work of many).

Successes in these jurisdictions include:

- reduced risk when managing criminal flight incidents
- greater than 99% apprehension rate on criminal flight incidents
- increased criminal apprehension rate on a variety of call types
- significant role in the re-deployment of police personnel
- deterrence and enforcement of traffic related issues (street racing/ impaired driving)
- fast response times
- targeted high profile deterrence tool
- live video feed of incidents to ground command
- mass area searches for lost persons (Alzheimer's, children)

Some statistical highlights from Edmonton (2004 - 2007) include:

- directly responsible for 953 arrests (these would not have been made without the helicopter and would have required further investigative resources)
- 8838 calls for service and first on scene 56% of the time; allowing for re-direction of resources, efficient communication, and more controlled emergency response of ground units
- regularly assisted the Edmonton Fire Department, RCMP and other Emergency Management Agencies as required
- 172 criminal flight incidents with a 99.3% apprehension rate (this reduces the risk to the public with a less than 2% collision rate during criminal flight)
- freeing up of police resources at large search scenes or major events

Some statistical highlights from Calgary (2008) include:

- directly responsible for 498 arrests
- 3110 calls for service
- 48 criminal flight incidents with an apprehension rate of 98%
- work with Calgary Fire Department conducting river rescue training and operations
- work with Calgary Paramedics to assist with illumination of accident scenes
- management of large protests or crowds by air, saving the need for officers in the crowd (G8, World Petroleum Conference)

Both Calgary and Edmonton offer extensive 'fly-a-long' programs open to members of the Service, Civic Administration, and in certain cases members of the public in order to educate them on the capabilities and advantages of such a unit.

From August 2000 - January, 2001 the Toronto Police Service conducted a 6 month pilot project with the use of 2-Bell 206 helicopters, contracted pilots and 5 members temporarily assigned from other areas of the Service. The following are some details of the program:

- May 1, 2000 approval for the creation of the pilot project and 3 months later the 6 month project began (August 1, 2000)
- 8 hours/day flight time, 6 days/week
- the 2 helicopters responded to 789 calls for service
- responded to 2 vehicle pursuits
- the police members in the aircraft received only 1 week of training (current Tactical Flight Officer training is approximately 6 weeks)
- there was no training for Communications Center staff nor the general patrol members of the TPS on the proper use and tactics of the helicopter (which has been identified as the most important key to the success of such a program)
- after 6 months the program was not continued

Toronto's experience was 8 years ago and since that time, the programs in Canada have matured and developed a great deal. Many of the decisions made at the time in Toronto were not compatible with a successful unit. Training of FOU staff on the helicopter equipment and deployment are keys to success.

OPPORTUNITY SAVINGS / BENEFITS

When proposing any new program, it is necessary to examine the potential costs versus the benefits expected in order to properly assess the value of the program. Benefits or worth in policing terms do not always equate to a measurable savings in dollars. This was seen in related research by Dr. Paul Whitehead who states "The "worth" depends on the value placed on the results it achieves" (see **APPENDIX A**). While significant savings are expected, they will flow from efficiencies gained and an increased level of service to the citizens. While increasing efficiencies, the helicopter also offers an array of specialized response capabilities that directly increase the level of safety of our officers and the citizens of Winnipeg.

The Winnipeg Police Service has taken advantage of examining the costs from several other police helicopter operations so that the cost estimates will be very accurate (with the exception of the varying US dollar and fuel rates). This includes the high residual value of the helicopter over the span of its use (helicopters unlike other assets retain a high percentage of its initial value dependent on its cyclical maintenance schedule).

While the WPS can expect to see similar successes that other Police Services have achieved with their Flight Operations Unit, an accurate estimate of the benefits is more difficult. A detailed study must examine the projected flight times (based on a schedule of a one helicopter operation) and estimate the impact that a helicopter may have on the incidents that it is best suited to assist in.

The results of the research support a model that would see the purchase of a helicopter, staffed on rotation by pilots, Tactical Flight Officers and an Aircraft Maintenance Engineer. The aircraft

would be in service approximately 80 hours per week. In-flight times (roughly 20 hours/week) and unit tasking would be intelligence-led when not responding to calls for service. Based on this schedule, it is expected that the helicopter would be free to respond to 60% of in-progress calls.

There are several areas where financial savings are sure to be seen. For example, on a daily basis, the K9 units of the WPS average five "containment" operations. These last for up to an hour each and will use between three to eight (two-officer) cruisers to cordon the area. With the implementation of a helicopter, the use of more than two cruisers would not be necessary and search times would be drastically reduced. This means that the other cruisers that would have been used can now be attending other urgent calls. It is impossible to measure the savings in dollars but this diversion of resources will clearly result in tangible benefits.

Another example of potential areas of savings comes from pursuits and emergency driving and the related costs from cruiser car damage and 3rd party damage. For example, in 2008, the WPS accumulated over $400,000.00 in cruiser car damage from pursuits and emergency driving. This figure does not include costs in relation to 3rd party vehicles, property, or injuries. With the helicopter in operation, cruiser cars will have the ability to reduce their high risk driving in response to emergency in-progress incidents by providing timely and accurate updates. Responding units may be directed to slow down thereby reducing the risk of injury and damage to both police and citizens.

In a time of transition to the 4 District Model, the WPS will be equipped with an enforcement tool that, when airborne, can respond anywhere in the city from the Winnipeg International Airport in under one minute, and in four minutes from a cold start. When focused on areas/neighborhoods of higher criminal events, response times will be almost immediate.

The issue of resource management is also one that the FOU will strongly influence. With an incredibly fast response time, the helicopter is able to arrive on scene quickly, direct units efficiently or reduce the need for ground units.

Another key advantage to the use of a helicopter is its ability to record video from its onboard camera/thermal imager. This video evidence is undeniable and is an important part of securing convictions as it often captures the entire event from offence to arrest.

The helicopter-equipped FOU will allow an array of responses not previously available, including the ability to search large areas with the use of the thermal imager and spotlight for lost individuals or suspects, river bank searches, observation platform for large events or emergencies, and tactical insertions of specialty units. Through innovative applications, all visual data gathered in the air may be downloaded to units on the ground.

A FOU will introduce the WPS to the standard that citizens in almost all other large urban centers expect and receive. It is a proven and highly visible tool that will provide our citizens with a safer environment and the Service with real and tangible results. The Service's profile will also be raised when this tool is employed to assist outside emergency response agencies with success.

With the establishment of a FOU the Winnipeg Police Service would deploy operationally to achieve the following objectives:

- Criminal escape management – vehicle/foot
- Resource management and force multiplication
- Criminal deterrence-proactive patrol
- Traffic enforcement (street racing/impaired drivers)
- Emergency operations platform
- Search for lost children/adults (Alzheimer's), river patrol, large rural areas
- Increased public safety
- Deployment of specialized resources, K9, Tactical Support, VIP escort
- Crowd management/special event management
- Inter agency use: WFPS major incident platform (Thermal Imager/30 million candle power spotlight, video downlink)
- Inter agency use: outside law enforcement (Corrections, RCMP, and Municipal Forces)

MISSION EQUIPMENT

The following chart outlines the majority of the onboard equipment that assist the FOU in achieving its operational objectives:

Equipment	Summary
Thermal Imager	This unit consists of a gyroscopically stabilized camera with zoom as well as the thermal imagery which tracks people or evidence by heat signatures.
Spotlight	30 million candle power light that can illuminate half a square block or the area the size of a bicycle. It can be slaved to the Thermal Imagery camera.
Police radios	Allow for communications with all agencies and frequencies.
Moving Mapping	This is a GPS based mapping system that lets the Tactical Flight Officer know where they are so as to give accurate directions to ground resources.
Public Address System	Power loudspeaker for public gatherings.
Rear View Monitor	Allows those in the rear to see exactly what the Tactical Flight Officer sees; great for training and strategic ride-a-longs.
Dual Controls	Allows for flight training to occur with the aircraft.
Video Downlink	Allows for whatever is seen on board to transmit to a location on the ground like a police or fire department supervisor. Excellent for large events or emergency scenes for efficient resource management.

In addition to the onboard equipment, selection of the model of helicopter must consider cost, temperate range of operation, fuel consumption, payload and noise signature.

FINANCIAL IMPACT

Financial Impact Statement **Date:** January 8, 2010

Project Name: Aerial Support Unit **First Year of Program** **2010**

	2010	2011	2012	2013	2014
Capital					
Capital Expenditures Required	$ 3,491,566	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	3,491,566	-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs		$ 1,283,000	$ 1,347,680	$ 1,393,099	$ 1,390,107
Less: Incremental Revenue/Recovery	-	1,283,000	1,347,680	1,393,099	1,390,107
Net Cost/(Benefit)	$ -	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts			-	-	-
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Costs are based on USD to CDN of $1.11. Fuel at $1.00 litre in 2010. Helicopter price estimates based on 2009 pricing. Cost estimates include building a hangar rather than leasing. This project requires additional funding for operating contingent on provincial funding. Salaries are based on increases to complement or contracting out. Cost increases for maintenance, staffing, insurance, fuel, and training estimated at approximately 3.5% per annum. The incremental revenue/recovery is the Provincial support requested.

original signed by Ron Smolik Jan 8, 2010
Controller/Manager of Finance

CONSULTATION

In preparing this Report there was consultation with:

Transport Canada
Nav Canada
Winnipeg Airports Authority
RCMP Air Services D Division
Calgary Police Service
Edmonton Police Service
RCMP Lower Mainland Air Services
York Regional Police Service
Saskatoon Police Service
Manitoba Government Air Services
City of Winnipeg Insect Control
City of Winnipeg Planning Property and Development
Air Borne Law Enforcement Association

SUBMITTED BY

Department	Winnipeg Police Service
Division	
Prepared by:	Dave Dalal and Nick Paulet
Date:	January 8, 2010
File No.	

APPENDIX A

Dr. Paul Whitehead, Professor of Sociology at the University of Western Ontario, has completed an evaluation of police helicopter patrols during a research project at London, Ontario. In his report *"TR-01-2001R, The Eye in the Sky: Evaluation of Police Helicopter Patrols"*, Dr. Whitehead concluded that while there was no hard data to conclude that helicopter use "suppressed" rates of crime, there was evidence of increased efficiency and effectiveness when the helicopter was involved.

Dr. Whitehead's findings in these areas mirror those of other studies (below). In particular, he identified the savings in police time and resources expended per: call due to the helicopter crew's ability to oversee and control responses to incidents, and the helicopter's unique ability to very quickly establish effective perimeters around crime scenes, leading to a higher rate of criminal apprehensions and less required follow-up investigative time. He also noted the helicopter's unique abilities in certain types of searches including rooftops, open areas, riverbanks, railroad lines and the like.

Dr. Whitehead's study also spoke of the increased safety to the public and police through the helicopter's ability to illuminate dark areas, detect impaired drivers and erratic driving behaviour, disperse unruly crowds, and take control of vehicle pursuits.

Research Conclusions:

Over the past number of years; there have been several papers written based on research which have resulted in a variety of findings. Some points of interest can be found as they relate to the creation of an aerial support unit.

In a final discussion point in the study *The Impact of Police Helicopters on Criminal Behaviour and on Clearance Rates,* January, 2000, the paper states, "Based on the observations and results produced in this research study, it is highly recommended that more police services in Canada consider using police helicopters in the near future.

The paper also suggests that in fact Canadian police agencies own multiple helicopters, something that has now been done in Vancouver, Calgary, Edmonton and currently underway in York. It was determined that the effects of multiple units in an efficient manner would resonate through levels of the criminal justice system

The paper identifies that with increased deterrence will result in a decrease in actual criminal acts, an increase of clearance rates, a decrease in criminal flight incidents and an actual increase to the safety of police officers and members of the public.

"Hence, the final recommendation made is that police service boards should start to regard police helicopters not as a means to an end but as valuable means in themselves; only then will many of the social, legal and economic benefits that police helicopter deployment can produce be realized by society."

This paper while supportive of continued aerial police operations in 2000 actually predicted the course of Canadian Aerial Law Enforcement as many services have followed the predicted course outlined by the paper in 2000 as it relates to multiple units with success.

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Michalik, Renee. 2000. *The Impact of Police Helicopters on Criminal Behaviour. Time-Series Analysis 1990 - 1997 The Impact of Police Helicopters on Criminal Behaviour and on Clearance Rates.* Toronto: University of Toronto.