



## HELICOPTER PURCHASE INFORMATION OVERVIEW

*Presented Tuesday, December 22<sup>nd</sup>, 2009*

### The Case For A Flight Operations Unit

As reported by helicopter-equipped Services, significant benefits have been realized through air support. These include:

- Increased public safety
- Enhanced officer safety
- Faster response times
- Improved pursuit management and a reduction in the number of dangerous high speed pursuits. This reduces our exposure to pursuit-related liability.
- Greater than 99% apprehension rates on criminal flight incidents
- Higher clearance rates on a variety of call types
- Added deterrence and enforcement of traffic related issues (street racing/ impaired driving)
- Live aerial video feeds of incidents for Incident Commanders on the ground.
- Improved support for Missing Person searches involving broad search areas and difficult terrain.
- Fewer demands of 'on the ground' resources by using aerial support to serve as a 'force multiplier' (a tool that allows one officer to accomplish the work of many).
- Greater police visibility in the community.

Some **statistical highlights** from the **Edmonton Police Service** (2004 - 2007) include:

- 953 arrests that would not have been made without helicopter support. These incidents would have required further investigative resources to complete.
- 8,838 calls for service, with the aerial support crew being "first on scene" 56% of the time. This allowed ground resources to be more strategically deployed and improved communications for all responding members.
- 172 criminal flight incidents with a 99.3% apprehension rate (this reduces the risk to the public and officers with a less than 2% collision rate during criminal flight)
- Freeing up of police resources at large search scenes and major events, allowing ground resources to be more strategically deployed.
- Ongoing assistance to the Edmonton Fire Department, RCMP and other emergency management agencies as required

Some **statistical highlights** from **Calgary Police Service** (2008) include:

- 498 arrests that would not have been made without helicopter support. These incidents would have required further investigative resources to complete.
- 3,110 calls for service
- 48 criminal flight incidents with an apprehension rate of 98%
- Assistance to the Calgary Fire Department during river rescue training as well as during regular operations
- Assistance to the Calgary Paramedics through the illumination of accident scenes
- Management of large protests or crowds by air, saving the need for officers in the crowd (G8, World Petroleum Conference)





## Enhanced Support for Frontline Members

With many Canadian agencies operating helicopters for general patrol support, the Flight Operations Unit Project Team was able to draw upon the best practices and experiences of these agencies in determining how we can best use this resource.

Following is a list of the primary tasks for the new Unit:

- Criminal flight management - vehicle/foot
- Resource management and force multiplication
- Criminal deterrence through proactive patrols
- Traffic enforcement (street racing/impaired drivers)
- Emergency operations platform that enables incident commanders to get a broader view of the scene.
- Missing Persons search support
- Visible presence for the Service
- Support for special operations including the Canine Unit, Tactical Support Unit and VIP escorts.
- Crowd Management/Special Event Management
- Spotlight and Thermal Imaging Support for the WFPS during major incidents.
- Inter-agency use: Support for other law enforcement agencies (Corrections, RCMP, and Municipal Forces)

## Staffing

- **Pilots:** The WPS does not currently have any qualified pilots on staff. The WPS will initially hire qualified civilian helicopter pilots and consider the option of eventually training police members for that role.
- **Tactical Flight Officers (TFO):** The role of the TFO is the most important in the Unit. The member must be able to multi-task, communicate and function in a hostile environment. The TFO is responsible for the deployment of the helicopter, the operation of the moving map system, CAD, thermal imager, spotlight as well monitoring multiple dispatch channels. While on a call, this officer must also quarterback the resources deployed with effective communication to ensure a successful resolution.
- **Aircraft Maintenance Engineer:** This role is responsible for the maintenance program of the aircraft.





## Equipment Capabilities

A police helicopter is required to be ready to deal with a variety of calls for service. Much of the equipment is very technical but is key to the unit's success.

Equipment	Summary
<b>Thermal Imager</b>	A gyroscopically stabilized camera with zoom capabilities as well as a thermal imager which tracks people or evidence by heat signatures.
<b>Spotlight</b>	A powerful light that can illuminate half a square block or the area the size of a bicycle. It can be synchronized with the helicopter's camera to illuminate a subject.
<b>Police radios</b>	Allowing for communications with all agencies and frequencies.
<b>Moving Mapping</b>	A Global Positioning System-based mapping system enables the Tactical Flight Officer to know exactly where they are so he or she can give accurate directions to the resources on the ground.
<b>Public Address System</b>	Powerful loudspeaker that will allow the crew to communicate with citizens on the ground at incidents and large public gatherings.
<b>Rear View Monitor</b>	Allowing those in the rear seats of the helicopter to see exactly what the Tactical Flight Officer sees.
<b>Dual Controls</b>	Allows flight training to occur with the aircraft.
<b>Video Downlink</b>	Allows flight crew to transmit bird's-eye video to resources on the ground, such as a police or fire department supervisor. This tool will aid in efficient resource management during large events and emergency scenes.





# WINNIPEG POLICE SERVICE FLIGHT OPERATIONS UNIT

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## The Helicopter

City of Winnipeg Policies and Procedures require a formal tendering process for a purchase of this magnitude and the Flight Operations Unit will do its due diligence to find the helicopter that is the best operational fit for the Service and at the right price.

Nearly all of the Canadian law enforcement agencies currently operating helicopter units presently use Eurocopter Canada's EC-120B Colibri ("Hummingbird"). It has fast become to Canadian law enforcement air support what the Crown Victoria Cruiser Cars is to general patrol operations.

The following information is provided to give you a glimpse what the WPS helicopter may be like.

### EC-120B Colibri ("Hummingbird")

Eurocopter Canada's EC-120B Colibri ("Hummingbird") is a single engine turbine helicopter with advanced technology which includes a "fenestron" tail rotor. This is an enclosed multi-bladed fan system that is very reliable, safe, and provides the lowest noise signature of all the helicopters examined (78 decibels in a 500' flyover; 6.6db below the ICAO threshold-equivalent to an idling transit bus across the street from a home).

The EC-120B has the largest cabin in its class, with ample room for crew and passengers after the installation of extra equipment. It also offers remarkable visibility.

With a speed of over 200 km/h, the EC 120 could cross the City of Winnipeg from North to South in less than 4 minutes. From the Winnipeg International Airport, when airborne the aircraft could be over downtown or the north end of Winnipeg within 20-40 seconds.

This helicopter possesses a lot of power, but is fuel efficient.

Eurocopter Canada has a manufacturing plant in Southern Ontario, as well as an inventory of parts within Canada offering critical support to operations using these helicopters.

The Edmonton Police Service implemented a helicopter patrol program in 2001 utilizing an EC-120. They are operating it in excess of 900 hours per year, the highest usage of any EC-120 in the world. Edmonton has just purchased its second EC-120. Both the Calgary Police Service and the RCMP in the Lower Mainland of British Columbia currently operate two EC-120s as well, while the York Regional Police Force (Ontario) is operating one.



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