

## UAV ( Drone ) Procurement comparison report

In October 2008 two companies were invited to quote for provision of a an Unmanned Aerial Vehicle ( UAV ) for use by Merseyside Police.

**MW Power** and **Air robot UK** provided quotes, which will be summarised within the body of this report.

The aforementioned quotes were set against a user specification. The specification was drawn from previous operational experience during earlier UAV trials and took into consideration Civil Aviation guidelines, training capabilities and the quality of back-up services offered. Reference should be made to the report by Inspector Ian Humphreys dated 23/06/2008 and the recommendations contained therein.

For comparison purposes, prices shown are full specification. This includes the ability to downlink digitally to police vehicles equipped with digital downlink MDT's.

Whilst this capability is currently limited to a small number of vehicles within Merseyside the potential for future use is evident. The basic UAV packages are able to link with analogue 'heli-telly' receivers such as those within some armed response vehicles. Analogue capacity would be considered sufficient for the medium term deployment potential of any UAV.

Previous trials within Merseyside highlighted the need for thermal imaging equipment to be deployed with any UAV to increase the times at which this technology could be effectively deployed.

### **MW Power**

Total cost of MD4 - 1000 package. [REDACTED]

This includes the heavier specification UAV with a digital downlink capability. With refund of 9 months rental payments on the previous Merseyside trial this reduces to [REDACTED]

### **AirRobot**

Total cost of AR100B package inclusive of thermal imaging and digital downlink. [REDACTED]

### **Recommendation**

Based on the quotations provided AirRobot represents the better value of the two units offered. Upgrade price comparison, buyback options and user feedback from previous trials make AirRobot a more viable package.

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policing**

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The refund of rental costs artificially reduces the cost of the MW Power package. Whilst this is desirable in the first instance any subsequent purchases would be at full price. This represents a significant difference in costs for any second units purchased.

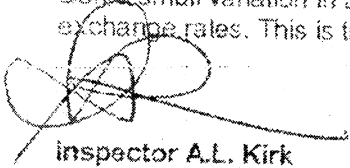
A purchase of one AirRobot AR100B unit ( Package 1 – Analogue downlink ) at [REDACTED] LED system at [REDACTED] and 520 line daylight video camera at [REDACTED]. A thermal imaging payload at [REDACTED] is strongly recommended.

Total suggested package cost [REDACTED]

Additional purchases of ancillary goods and training services may be necessary as operational experience and application of this technology develops.

AirRobot provide a full list of additional packages however package 1 is currently used in two other UK forces. No immediate additional purchases are anticipated.

Some small variation in the final purchase price can be expected due to poor exchange rates. This is the case with both quoted suppliers.



Inspector A.L. Kirk  
ASCU  
Crime Reduction Technology

Approved purchase of Air Robot [REDACTED] with  
thermal imaging payload [REDACTED] [REDACTED]

Purchase order no. [REDACTED]  
[REDACTED] [REDACTED]

**Question to the Representative of the Police Authority**

**By Councillor Pat Mooney**

**Question**

How many hours over the last 12 months has Merseyside Police flown unmanned 'drone' aircraft over Merseyside?

**Answer**

In the 12 months between 1st October 2009 and 1st October 2010 the Unmanned Aerial Vehicle (UAV) has recorded 59 hours and 12 minutes of operational flight. In February 2010 flights were suspended following notification from the CAA that the Force was operating the UAV without the appropriate CAA approval.

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**Telephone Number: 0151 777 5431**

**Signed: ACC Helen King (Area Operations)**

**Date – Tuesday 12<sup>th</sup> October 2010**

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## Question to the Representative of the Merseyside Police Authority

By Councillor Paul Twigger

### Questions

A recent news story stated that Merseyside Police had one or more radio controlled helicopter CCTV units.

Can the representative on the Police Authority answer the following:

- 1 How many radio controlled helicopter CCTV units does Merseyside Police operate?
- 2 Where the units are based?
- 3 When were the units introduced?
- 4 How often are the units in active service?
- 5 Who controls the units and what training is undertaken to ensure proper and appropriate use?
- 6 Are the CCTV images examined locally or centrally, and in real time or otherwise?
- 7 What are the costs involved with the purchase/lease of the units, and their associated running costs?
- 8 What consultations with local authorities and residents were undertaken prior to the introduction of these units?
- 9 What preventative measures are being taken to ensure people's privacy is not infringed?
- 10 When can we expect full statistics to be made available to allow a proper judgment to be made on whether or not these units are appropriate for tackling crime?

### Answers

1. The Force currently owns and deploys one Unmanned Aerial Vehicle (U.A.V.)
2. The U.A.V is based at Wavertree Road Police Station under the control of the ASB Task Force.
3. The U.A.V was first introduced in 2007 as part of a trial into its effectiveness in tackling Anti Social Behaviour.
4. The U.A.V is available for deployment throughout the week during the operational hours of the ASB Task Force.

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Signed: Chief Superintendent Peter Brinkley, Strategic Development Dept (on  
behalf of Chief Constable)  
Date – Wednesday 20<sup>th</sup> January 2010

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6. The UAV is controlled by specially trained officers from within the ASB Task Force. Each officer undergoes a 2 day intensive training course run by Airrobot UK Ltd. Prior to qualification they then undergo further training within Force to assess Competence. This training consists of at least 5 hours of Supervised flying and also includes training on legislation pertaining to Surveillance and Privacy.
8. CCTV images are examined in real time and are also stored locally for a 31 day period unless required for evidential purposes.
7. The initial cost for the entire system was approximately [REDACTED]. This includes the cost of the Base Unit, Control systems and the vehicle itself. Future upgraded vehicles can be purchased without having to replace the infrastructure. Operational costs consist of fuel for the Command Vehicle. The U.A.V is battery powered and these are recharged within the Command Vehicle.
6. Merseyside Police undertook a comprehensive trial in 2007. This was widely publicised through the media as a way of improving the effectiveness of the police in tackling crime and anti-social behaviour. The trial received positive feedback from the Police Authority and public during Open Forums. This successful trial was evaluated and procurement was authorised for the current U.A.V, which is the market leader.
9. As stated, part of the training course consists of an input on legislation pertaining to surveillance and privacy. U.A.V deployments are reviewed by supervisors within the ASB Task Force to ensure compliance. All directed Surveillance is done under the auspices of a R.I.P.A authority to ensure full compliance with legislation.
10. Statistics are collated on a monthly basis to allow for determination of best practice. The U.A.V provides a fast real time response to incidents that would not normally be covered by the Force Air Support Group, and at a much lower cost.