

Report to the Cabinet

Report reference: C-063-2015/16
Date of meeting: 11 January 2016



Portfolio: Governance
Subject: Purchase of Aerial Camera System
Responsible Officer: Jerry Godden (01992 564498).
Democratic Services: Gary Woodhall (01992 564470).

Recommendations/Decisions Required:

(1) That the Council purchases under the 'invest to save scheme' two aerial camera systems and associated training for £5000 to enable the Council to carry out its own aerial photographic surveys for a number of different sections across all four Directorates.

Executive Summary:

The purchase of a Council owned and operated aerial camera systems would enable the Council to carry out its own aerial and oblique surveys of sites, with subsequent cost saving from having to buy bespoke commercial photographs and videos, and would enable the use a flexible and responsive system to carry out these surveys at short notice and to a bespoke option to suit the user. The users would include Planning, Planning Enforcement, Trees & Landscape, Private Sector Housing, Housing Repairs, Emergency Planning, Council Tax, and the Engineering, Drainage and Water Team. It is envisaged that more sections will find uses for the systems as they come into operation.

There is also the option to use the system to generate an income stream for the Council in the sale of air time to other authorities and agencies.

This report is before Cabinet to authorise the purchase of the equipment and training for a cost of £5000. The systems would be purchased and operated by the GIS Section.

Reasons for Proposed Decision:

An opportunity to purchase aerial camera systems has arisen and it is considered that such a purchase would save the Council money and result in a more efficient way of working for all Directorates.

Other Options for Action:

Continue using commercially available aerial photography. This has a significant associated cost and is inflexible in its response to the needs of the end user department.

Report:

1. The Council has previously looked at purchasing a fixed wing Unmanned Aerial Vehicle (UAV) in 2013 but it was decided at Management Board level that the time was not right for such a purchase.
2. The technology has moved on since then and the Council can now buy 2 helicopter type UAVs with the appropriate software and training for £5000 which is less than the price for the proposed 2013 fixed wing UAV purchase.
3. These UAVs would have a wide range of uses as laid out below, and EFDC would be following a number of other Local Authorities and Public Sector bodies who have used or purchased UAVs such as North Norfolk for river surveys, Barnsley for town centre redevelopment and Walsall Housing Group for building surveys.
4. The system would be a [DJI Phantom 3](#) which can be fitted with various camera and software options as required by the purchaser. The technical requirements would be dealt with by the GIS section who would hold and operate the systems for the benefit of the end user sections. The system is 590mm across and about 500mm high. It has a range of 2KM and can be fitted with various camera options with high resolution cameras. It flies at low levels, is electrically powered, and its low noise level footprint is a feature of its use. It does not need a qualified pilot to operate as it takes off and lands by itself.
5. Whilst the UAV does not currently require Civil Aviation Authority (CAA) Licensing, we would apply for a Permission for Aerial Work (PFAW) license in a belt and braces approach. However the operating staff would receive CAA approved training and qualifications.



6. The cost is £1500 per UAV and £2000 for software and training. The Council's Public Liability Insurance would cover its operation.
7. This cost would be borne from the corporate budget as it meets the criteria for an upfront investment which will produce longer term savings and all Directorates would have

access to the system.

8. Flying into controlled airspace (i.e. Stansted and local aerodromes) will be possible with prior arrangement.

9. Various sections across all Directorates have a requirement for this type of equipment. Some of these are laid out below but this is not an exhaustive list and it is considered that other uses will be discovered once the UAVs are in operation and become a familiar and useful tool.

10. Planning would use them for surveys of the District and of specific sites for Development Control and Trees and Landscaping. An example of its use would be for the Planning Enforcement Section. The UAV would allow a flexible, quick and responsive system that has the benefit of height, speed and reach. It would allow the section to produce accurate aerial photos of sites being investigated in almost "real time" and allow comparison with historic records. At the moment the section can only use legacy photos which usually do not show the works which have been carried out. To be able to show what changes have occurred and when would be a valuable tool in the fight against environmental crime as both evidence and a negotiation tool, as it would be a record of fact not open to significant interpretation. It would also allow surveys to be carried out on sites which are difficult to enter or have serious officer safety implications; this would ensure speedier investigations and service of the relevant notices.

11. Housing and Housing Repairs would use the system for a number of surveys including the carrying out initial surveys of land that might potentially be used for building Council houses. They would also be able to do surveys of roofs and guttering without the need for expensive and time consuming personal surveys involving scaffolding.

12. Private Sector Housing would be able to use them for checking site licence conditions on park home sites as it is proposed that an annual check will be carried out on all our permanent residential sites over the district to ensure compliance with the Council's site licence conditions. The equipment would not remove the requirement for an officer to carry out their own on-site inspection but it would be extremely useful in highlighting spacing contraventions between homes and also identifying general deficiencies on the site.

13. Housing would also use the system to assist with the investigation of complaints. It would also be very useful in helping substantiate complaints from residents of park home sites, for example, regarding inadequate car parking provision. In the past, this has been investigated by officers monitoring the park home site (two officers required, as it is a no lone visit) at different times of the day and days of the week. The UAVs could be used to give an accurate snap shot of the numbers and position of cars to establish the extent of any capacity issue.

14. Some neighbouring Councils are having to deal with an issue of 'beds in sheds' where property owners are erecting shed like structures in their back gardens and offering them out for rent, illegally. If this became a problem on our District, the UAV would be a useful tool in investigating and identifying gardens of concern. Similarly the equipment would be useful for Investigating complaints about non-residential structures (such as garden sheds and commercial storage buildings) being used illegally for residential purposes.

15. It is a Government requirement that a survey is carried out on all the gypsy sites over the District on two prescribed days in January and July each year. This currently takes two officers a whole day to complete. The UAVs could be used to survey some, or all, of the sites on those specified days, thereby reducing the officer time and the potential risk to officer safety.

16. Communities would be able to use the system for Land Drainage purposes, including near real time flooding surveys. Good quality images may help identify illegal waste transfer sites, large scale hidden illegal waste deposits and previously unidentified unauthorised caravan encampments.

17. Council Tax have a requirement for identifying new building and other buildings in residential use – this system would allow a quick and easy solution for identifying these properties.

18. As all photography taken will be ours to sell or share, we could possibly maximise income by selling on this service to, for example, Harlow District Council. There may also be opportunities to explore shared use and potential revenue generation in respect of other public bodies. This could be explored once our own uses were identified, regulated and had become embedded in order to deal with any initial issues.

19. We could also share this information with all Parish/Town Councils arranging a "log in" for them to access up to date aerial photography for their uses as statutory bodies.

Privacy Issues

20. The UAV system is designed to fly at an unobtrusive height to minimise noise and disturbance. The use of aerial platforms to take photographs is legal and there are a number of companies who take regular surveys of the whole of the UK for commercial and private sale, from which the Council currently buys its aerial photos. It is also the case that under Sections 196A-B and 324 of the Town and Country Planning Act 1990 (as amended) the Local Authority has the right to undertake surveys which would include aerial surveys. The system is also not sufficiently sophisticated for faces to be recognisable.

21. It is considered that the images captured by the system are similar albeit of a higher resolution, to those which we buy commercially or can be seen on the internet through sites such as Google Street view and Bing aerial photographs. We have purchased commercial aerial photographs of this district for over 50 years and this new system allows the Council flexibility in taking images without the associated commercial costs of buying images on an ad hoc basis. The only difference between us buying or using commercial images and having a system to take our own is that having our own system will be a much more flexible and cost effective way of taking images for the multiplicity of uses required by the Council.

22. Public Relations are aware of this proposal and have highlighted media issues around privacy concerns and an agreed policy for the use of the UAV and the captured images will need to be agreed.

23. The Legal Section have advised that for enforcement investigations then the Regulation of Investigative Powers Act (RIPA) would need to be looked at on a case by case basis to see if any advice/approval by the Council's Director of Governance as the designated Senior Responsible Officer or the authorising officers for that legislation would be required if a case required a covert investigation. For overt investigations this would not be an issue – although the protocols for any use of the equipment would be followed in any event. The Councils RIPA policy would also need to be updated to take account of the new system but this would be best done in conjunction with the inspection of our RIPA practices and policy by Sir David Clarke, Assistant Surveillance Commissioner, on 5 February 2016. However, there is no legal impediment to the purchase and use of such a system.

Conclusion

24. This is an excellent opportunity for the Council to acquire a cost effective system to enable more efficient working practices across the Council with a significant cost saving on various functions that we already carry out. The Council will need a policy document for its employment but this will not be difficult to compose and should not be regarded as an obstacle to this proposal. Indeed as innovative uses are developed and agreed the policy document will undoubtedly develop further.

Resource Implications:

£5000, split between a capital sum of £3500 for purchase of the system and £1500 for training courses and software from within the invest to save budget.

Legal and Governance Implications:

Town & Country Planning Acts
Housing Acts
Environment Acts
Caravan Sites and Control of Development Act 1960
RIPA Act
Police and Criminal Evidence Act

Safer, Cleaner and Greener Implications:

The purchase of the systems would allow a reduction in officer repeat journeys to sites, reducing traffic congestion and fuel consumption. The UAVs are powered by electric motors so are non-polluting.

Consultation Undertaken:

Management Board

Background Papers:

Nil

Risk Management:

Apart from the impact on Budgets, the decision impacts on the Council reputation in terms of good decision making and ensuring the efficient and cost effective use of modern technology is properly explained.

Risk of technical or mechanical failure – minimised by research into purchasing robust UAV and giving /updating training of operatives.

Inappropriate use of UAV – minimised by existing policy and procedures for covert surveillance in line with the Regulation of Investigatory Powers Act and internal operating procedures.

Due Regard Record

This page shows **which groups of people are affected** by the subject of this report. It sets out **how they are affected** and how any **unlawful discrimination** they experience can be eliminated. It also includes information about how **access to the service(s)** subject to this report can be improved for the different groups of people; and how they can be assisted to **understand each other better** as a result of the subject of this report.

S149 Equality Act 2010 requires that due regard must be paid to this information when considering the subject of this report.

Potentially all residents within the Epping Forest District boundary and people working within the district. The main effect will be the capture of electronic photographic and video data which will need to comply with Data protection regulations and RIPA. It is not foreseen that any unlawful discrimination will result from this purchase as it is not designed for individual identification. In relation to sites where access is difficult or complainants are genuinely intimidated this may assist in gathering information without unduly distressing them. This system will improve the service the Council is able to give to all those within the District and will enable quick and fair decision making.