

**CONTROLLING OFFICER'S REPLY**

**DEVB(PL)127**

**(Question Serial No. 1298)**

Head: (91) Lands Department  
Subhead (No. & title): (-) Not Specified  
Programme: (2) Survey and Mapping  
Controlling Officer: Director of Lands (Ms Bernadette LINN)  
Director of Bureau: Secretary for Development

Question:

With the advancement of technology, there has been an upsurge in the number of projects applying "Building Information Modelling" technology in recent years, and the application of photogrammetric survey will be popular with quite a number of practitioners in the engineering or surveying profession using digital cameras, smart phones or drones to conduct the survey. Provision for 2016-17 under this Programme is \$10.3 million (1.9%) higher than the revised estimate for 2015-16. In this connection, please advise this Committee on the following:

- (1) How will the additional estimated expenditure for the current financial year be used to provide support for the staff in optimising the use of modern technologies in their land survey work? What is the expenditure involved?
- (2) In addition to enhancing the Land Information System and the quality of the territory-wide 3D spatial data, the Lands Department will replace the film-based aerial camera with a large-format digital aerial camera system. What are the expenditures involved in enhancing the systems and technologies respectively? What effect is the replacement of the systems expected to have on enhancing land survey and mapping work (including how the procedures and time can be saved)? How does it facilitate the establishment of a land database?

Asked by: Hon Tony TSE Wai-chuen (Member Question No. 16)

Reply:

- (1) The Lands Department (Lands D) will explore the use of advanced survey technologies for new applications in land administration and land surveying work. In 2016-17, an estimate of about \$8 million will be used for the acquisition of an integrated 3D laser scanning and digital imagery mobile mapping system, an unmanned aerial system, three high precision total stations as well as for the upgrade of the existing satellite positioning reference station system. The use of the new technologies will enhance the efficiency and quality of survey and mapping services.

(2) In 2016-17, Lands D will employ a large format digital aerial camera (LFDAC) system to enhance the quality of aerial photographs and other photogrammetric products (e.g. digital orthophoto). With automated functions and simpler operation, it is expected that the number of aerial photographs taken and processed every year through the LFDAC system will be increased by 10% to 15%. The production time of aerial photographs will also be shortened by almost 50% because film development will no longer be required in the production process. After delivery and installation, Lands D will operate the system using existing staff resources. The aerial photographs and other photogrammetric products can be used with topographic maps and land status information to facilitate land administration as well as land boundary surveys, and to enrich the content of the land information database.

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