

LCQ13: Promoting the development of low-altitude economy

Following is a question by the Hon Nixie Lam and a written reply by the Secretary for Transport and Logistics, Mr Lam Sai-hung, in the Legislative Council today (February 28):

Question:

It has been reported that in recent years, the Mainland has been proactively promoting the development of low-altitude economy (i.e. an integrated form of economy which centres around various low-altitude flying activities by manned and unmanned aircrafts, manifesting into integrated development of related fields) with the widespread use of unmanned aircrafts in areas such as smart city development, logistics and transportation, emergency response, aerial surveying and environmental protection. In this connection, will the Government inform this Council:

(1) whether it has explored the development potential of low-altitude economy; if so, of the details; if not, whether the authorities will draw reference from the Mainland's experience to formulate strategies and plans for the development of low-altitude economy industries, so as to co-ordinate and regulate the development of such emerging industries;

(2) whether it has reviewed the relevant laws and regulations with a view to removing red tape for the development of low-altitude economy; if so, of the details and timetable; if not, the reasons for that;

(3) whether it has reserved space and land for the development of low-altitude airspace transport infrastructure, so as to facilitate pilot applications for low-altitude flying activities; if so, of the details; if not, the reasons for that; and

(4) in respect of promoting low-altitude economy, whether it will expedite the provision of relevant software and hardware infrastructure as well as ancillary facilities in Hong Kong; whether it has looked into ways to enhance collaboration among industry, academic and research sectors in respect of low-altitude economy and its market applications, and to develop industrial clusters involving its industry chain, supply chain and innovation chain, with a view to promoting the innovative development of low-altitude economy industries in a comprehensive manner?

Reply:

President,

Low-altitude economy refers to an integrated form of economy manifesting into the development of related fields, which centres around low-altitude flying activities by manned and unmanned civil aircraft within low-altitude airspace below 1 000 metres in vertical altitude generally, extending to not

more than 3 000 metres depending on practical needs. In recent years, the Mainland has been promoting the development of low-altitude economy and has developed an edge in some areas. In particular, the extensive application of unmanned aircraft in different aspects has opened up development potentials and economic opportunities for Mainland cities.

In consultation with bureaux and departments including the Commerce and Economic Development Bureau, the Culture, Sports and Tourism Bureau, the Development Bureau (DEVB), the Environment and Ecology Bureau, the Innovation, Technology and Industry Bureau, the Security Bureau and the Civil Aviation Department (CAD), etc, the consolidated reply to the question raised by the Hon Lam is as follows:

(1) and (4) At present, low-altitude activities are widely practised in many fields in Hong Kong and are developing in an integrated manner with various socio-economic activities. Relevant bureaux and departments of the Government of the Hong Kong Special Administrative Region (HKSAR) will explore suitable low-altitude activities and promote the development of low-altitude economy under their respective policy portfolios, with a view to developing industries in specific areas.

Government departments and private organisations have been using small unmanned aircraft (SUA) in an increasingly wide range of areas, including the development of three-dimensional digital maps, search and rescue, aerial filming, drone shows, land/ building surveys and utility/ power line inspections. At the same time, various government departments also make use of SUA to enhance work efficiency, for example, using SUA to assist in the search and rescue work of the Fire Services Department and the Civil Aid Service, the inspection and enforcement work of other government disciplined services departments (including the Correctional Services Department, the Customs and Excise Department, the Hong Kong Police Force and the Immigration Department), the monitoring of landfill operation by the Environmental Protection Department, the surveying and inspection work of the Drainage Services Department, the ecological conservation and country park planning and management work of the Agriculture, Fisheries and Conservation Department, the inspection work of the Electrical and Mechanical Services Department in relation to site safety, progress monitoring, and building maintenance and repair in the plants and works sites of District Cooling Systems, the collection of geospatial information for mapping and enforcement by the Lands Department, as well as slope inspection and maintenance by the Civil Engineering and Development Department, etc. In addition, the Hong Kong Observatory plans to carry out a pilot study on the use of SUA in meteorological and radiation measurements later this year.

With reference to the experience of Mainland cities, we expect that the development of low-altitude economy will help promote the development of various industries. For example, in terms of logistics, the development and experience of other places regarding the application of unmanned aircraft in local delivery vary. As pointed out in the Action Plan on Modern Logistics Development, the Government encourages the logistics industry to utilise technology and make wider use of smart logistics solutions to enhance competitiveness. We will maintain communication with the logistics industry

and keep a close watch on the applications of SUA locally. As for tourism, the Government will closely monitor the development of low-altitude economy and support projects which can enrich visitors' experience. Furthermore, on the innovation and technology front, the Smart Government Innovation Lab (Smart Lab), set up by the Office of the Government Chief Information Officer in 2019, assists government departments in introducing innovative technology solutions to enhance public services and city management. Government departments can utilise resources of the Smart Lab to arrange proof-of-concept and testing of potential technology proposals, such as the applications of unmanned aircraft in fields including smart city, transport and logistics. This will enable government departments to formulate innovative measures more effectively to improve public services.

The promotion of low-altitude activities requires corresponding hardware and software infrastructure and supporting facilities, such as a mobile communications network system. At present, the mobile communications network in Hong Kong (including the 5G network which is commonly used by drones for aerial filming or performances) already covers more than 90 per cent of Hong Kong's population and 99 per cent of the core commercial districts, which can sufficiently support the operation and technological development of unmanned aircraft.

(2) The SUA Order (Cap. 448G) came into effect on December 1, 2022. With a risk-based approach in regulating SUA operations, the SUA Order also provides the necessary flexibility for future applications of SUA, allowing ample room for the development and applications of SUA in tandem with the evolving technology and innovation. As at February 2024, the CAD has issued permission to nearly 100 companies or organisations for SUA operations, most of which involve surveying and aerial photography.

In addition to SUA, some Mainland cities have also started to explore the use of larger unmanned aircraft (i.e. unmanned aircraft weighing over 25 kg) for various purposes, such as the transport of heavier goods and/or passengers, emergency rescue, aerial filming, environmental and ecological protection work, etc. The Government will continue to closely monitor the latest development of various types of unmanned aircraft and review the existing regulatory regime at a suitable juncture.

On the other hand, the HKSAR Government notes that the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area (Greater Bay Area) specifies the deepening of the reform in the management of low-altitude airspace management, the expedition of the development of general aviation and the steady development of cross-boundary helicopter services. Subject to compliance with the relevant immigration and customs clearance and quarantine arrangements, the HKSAR Government will continue to explore with the Mainland proactively on further facilitation of the development of cross-boundary commercial helicopter services, with a view to promoting air traffic connectivity within the Greater Bay Area.

(3) Based on the Mainland's experience, the development of low-altitude economy industries requires the co-ordination on various fronts, ranging from policies and legislation, technology research and development, infrastructure

development, to flight paths planning, airspace management, etc. It also requires land and spatial planning. If relevant policy bureaux and departments put forward land and spatial requirements for promoting low-altitude economy, the DEVB will incorporate the requirements in its planning of new development areas.

Relevant government bureaux and departments will continue to closely monitor and make reference to the development of low-altitude economy in the Mainland and other regions, and enhance mutual communication, such that the relevant policies on promoting low-altitude activities and even low-altitude economy in different areas can be fully co-ordinated.