

LCQ1: Developing low-altitude economy

Following is a question by the Hon Chan Siu-hung and a reply by the Acting Secretary for Transport and Logistics, Mr Liu Chun-san, in the Legislative Council today (July 3):

Question:

â€œIn the "two sessions" this year, the State President stressed the need to develop new quality productive forces. There are views that new quality productive forces generated by low-altitude economy (LAE) industries will accelerate the synergistic and diversified economic development of the Guangdong-Hong Kong-Macao Greater Bay Area (GBA), and Hong Kong should proactively dovetail and co-ordinate with various GBA Mainland cities, make good planning starting from the top-level design and start formulating industry policies, so as to expeditiously promote the development of Hong Kong's and cross-boundary LAE. In this connection, will the Government inform this Council:

(1) given that LAE development involves different policy areas, whether the Government will consider setting up an inter-departmental working group on LAE to effectively co-ordinate various policy bureaux and government departments to take forward LAE development; if so, of the details and the implementation timetable; if not, the reasons for that;

(2) whether it will review the relevant legal framework, and consider making good planning starting from the top-level design, formulating strategies for LAE development, and introducing industry policies and implementation plans covering areas such as infrastructure, industrial application, innovation and technology, safety management, and insurance laws and regulations; and

(3) whether it will consider exploring the development of infrastructure for LAE in the Northern Metropolis and the Kau Yi Chau Artificial Islands, including information infrastructure such as common take-off/landing points, communications, navigation, surveillance and meteorological maps, and expeditiously kick-starting local and cross-boundary pilot projects on LAE?

Reply:

President,

The Premier of the State Council, when delivering the Government Work Report in the second annual session of the 14th National People's Congress, mentioned the need to actively foster the development of low-altitude economy as one of the new growth engines. In order to tie in with the overall national development strategies, the Government of the Hong Kong Special Administrative Region has also been proactively promoting the development of low-altitude economy on various fronts.

With continuous technological development and innovation, the concepts of low-altitude economy and low-altitude flying activities, which are

centrally driven by Advanced Air Mobility (AAM), have gained widespread attention in the Mainland and internationally in recent years. Low-altitude economy brings emerging development opportunities to Hong Kong. However, given the relatively complex airspace and geographical environment in Hong Kong, the Government needs to ensure that the relevant flying activities are conducted in an orderly and risk-controlled manner.

In consultation with the Development Bureau, the Commerce and Economic Development Bureau and the Civil Aviation Department (CAD), the consolidated reply to the question raised by the Hon Chan Siu-hung is as follows:

(1) The overall development of low-altitude economy is a huge systematic project which requires co-ordination in different areas, including regulations, formulation of aviation safety policies, technological research and development, infrastructural support, land planning and commercial applications. The Transport and Logistics Bureau (TLB) has been working closely with the relevant bureaux and departments to make co-ordination and remove barriers under different policy areas to support the development of low-altitude economy. At the same time, the TLB and the CAD are actively exploring ways to promote low-altitude flying activities from the perspectives of regulations, technical requirements and airspace management, etc.

(2) Low-altitude airspace dedicated to low-altitude flying activities has always been available in Hong Kong airspace, and low-altitude flying activities, including helicopter flights and small unmanned aircraft (SUA) operations, have been taking place in Hong Kong airspace for many years. With the expected gradual increase in low-altitude flying activities, the CAD is working with the industry under the framework of the existing SUA Order (Cap. 448G) to explore ways to further facilitate and widen the applications of SUA, e.g. beyond-visual-line-of-sight operations, as well as to further expedite the application process by different means. Apart from SUA, different types of AAM are also emerging, including larger, i.e. weighing more than 25 kilograms manned and unmanned aircraft. At present, the International Civil Aviation Organization (ICAO) has yet to formulate international standards and recommended practices for AAM. In the long run, in order to ensure that a legal framework is in place for the operation and applications of AAM, the Government will review the existing civil aviation and other relevant legislation and regulatory regimes based on different considerations, including aviation safety, airspace management, privacy, insurance requirements, customs, immigration and quarantine procedures for cross-boundary flying activities, so as to support the latest development of low-altitude economy.

(3) In terms of infrastructure, with the gradual increase in AAM activities, low-altitude airspace management will also require the gradual establishment of corresponding software and hardware infrastructure systems and supporting facilities, including global navigation satellite systems and related differential positioning facilities; radio mobile communication network systems, high-speed data transmission systems, cloud computing and big data platforms, smart low-altitude traffic management systems and data exchange platforms, flight plan management systems, network security provisions;

cross-boundary system connections. These systems and facilities will need to interface and exchange data with existing systems, such as air traffic management system, airport drone detection system, meteorological system and "eSUA".

Among the various infrastructure facilities, mobile radio communications network is indispensable for promoting low-altitude flying activities. At present, the relevant spectrum supply and network coverage, including commercial 4G and 5G networks in Hong Kong can adequately support general operations of unmanned aircraft. In addition, the regulatory regime in relation to communications, i.e. the Telecommunications Ordinance (Cap. 106), does not impose any restriction on the development of low-altitude economy and its related applications. The Office of the Communications Authority will continue to closely monitor the development trends of the telecommunications industry in the Mainland and around the world, including 5G and 6G technologies, in order to ensure that Hong Kong's spectrum planning is in line with that of the Mainland and other advanced economies.

Furthermore, new large-scale land development projects, like the New Development Areas of the Northern Metropolis and the Kau Yi Chau Artificial Islands, can provide a large amount of land and space, such as sufficient open space, community and commercial land, etc, which should be able to cope with the land and space requirements of the infrastructure relevant to low-altitude economy. In terms of town planning, the infrastructures and uses related to the low-altitude economy, such as vertiports and charging facilities, can generally be accommodated under the permitted uses of the relevant zoning or their ancillary uses. In other words, there is scope for these new development regions to provide the necessary land and infrastructure for promoting low-altitude economy.

Regarding the promotion of pilot projects on low-altitude economy, the Mainland is now primarily using civil unmanned aircraft pilot areas as a basis for establishing low-altitude economy development zones and test flights areas, thereby fostering the development of low-altitude economy. As different application scenarios involve different requirements on aircraft loading, flight range, flight duration, operational reliability and safety, the Government will implement pilot projects on low-altitude economy in a gradual and orderly manner, starting with the transport of goods by unmanned aircraft, and then gradually widening and enriching the application scenarios of AAMs from the near to the far, and from the light to the heavy. The Government will continue to work on various fronts to capitalise on the Mainland's strengths and promote low-altitude economy as one of the growth engines of new quality productive forces.

Thank you, President.