

For information

**Bills Committee on
Telecommunications (Amendment) Bill 2009**

**Development of Digital Audio Broadcasting (DAB)
in Hong Kong**

At the Bills Committee meeting held on 5 November 2009, Members requested the Administration to provide supplementary information on the availability of frequency spectrum upon the launching of digitisation of sound broadcasting, and the Government's plan to support the development of DAB services by the Radio Television Hong Kong (RTHK), including the result of the technical trial of DAB conducted previously by RTHK. This paper sets out the supplementary information requested by the Bills Committee.

Availability of frequency spectrum for the development of DAB

2. Currently, analogue sound broadcasting services are provided in the AM Band (526.5kHz – 1606.5kHz) and FM Band (87MHz – 108MHz). The use of these frequencies requires co-ordination with the Mainland, Macao and other neighbouring jurisdictions to avoid radio interference. Within the currently available analogue frequency spectrum, Hong Kong now has seven territory-wide FM channels and seven territory-wide AM channels. All of them have been allocated and are currently being taken up by RTHK and three commercial sound broadcasting licensees for the provision of territory-wide services.

3. According to overseas experience, Band III (174MHz – 230MHz) is suitable for DAB services. The prevailing digital broadcasting technologies using Band III are Eureka-147 DAB developed in Europe for digital radio. A frequency multiplex of 1.5MHz in Band III can carry seven Compact Disc quality sound channels. In Hong Kong, four frequency multiplexes in Band III

have been identified.

4. According to the framework for development of mobile television services announced in December 2008, two out of the four available frequency multiplexes in Band III could be used for providing mobile TV, DAB or datacasting services. The remaining two Band III multiplexes are reserved for future DAB services, or other possible electronic communications services when technology further evolves. However, since this announcement, we have been monitoring market and technological developments and are reviewing the use of the available frequency multiplexes. No decision has yet been taken on when to proceed with the release of these multiplexes.

Technical trial conducted by RTHK

5. From August 2004 to May 2007, RTHK carried out several DAB tests on the use of Band III (218.64 MHz). Three transmitters were set up at Mount Gough, Beacon Hill and Castle Peak covering respectively areas of Hong Kong Island, Kowloon Peninsula, Shatin and western part of New Territories. All seven RTHK radio channels were carried under one DAB multiplex. These trials were successful and confirmed the technical feasibility of running DAB in Hong Kong.

Future development of DAB services by RTHK

6. In September 2009, the Chief Executive in Council decided that RTHK should remain as a Government department and that it should take up the mission as the public service broadcaster of Hong Kong. Subject to the outcome of the public consultation being conducted by the Commerce and Economic Development Bureau (CEDB) and the established mechanism governing the allocation of new resources, RTHK would be allocated appropriate resources and frequency spectrum to enhance its operations and expand the scope of its services, including the provision of dedicated digital television and radio channels.

7. Specifically, RTHK should develop as an all-round public service broadcaster to serve the community with the following service package:

- (a) analogue AM and FM services that RTHK is currently providing, i.e., 4 AM channels and 3 FM channels;
- (b) new DAB services through the use of a Band III multiplex; and
- (c) new high-definition and standard-definition television services through one digital terrestrial television multiplex in the UHF Band.

8. RTHK would commence the preparatory work for the spectrum use and transmission network planning for the provision of DAB services in consultation with OFTA. The Government has committed to providing sufficient resource for the development of RTHK as the public service broadcaster of Hong Kong. CEDB and RTHK are working together to follow up on the resource planning for establishing digital radio and TV services by the new RTHK. Where appropriate and justified, additional funding will be sought through the established mechanism. We estimate that territory-wide DAB services can be rolled out in phases in a period of around three to five years.

Commerce and Economic Development Bureau
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