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By email

13 May 2016

Mr. Daniel SIN
Clerk, Panel on
Information Technology and Broadcasting
Legislative Council
1 Legislative Council Road
Central, Hong Kong

Dear Mr. SIN,

**Panel on Information Technology and Broadcasting
of the Legislative Council**

I refer to your letter of 25 April 2016. After consultation with the Office of the Communications Authority (“OFCA”), our responses to the issue raised by Hon Claudia MO at the meeting of 11 April 2016 of the Panel on Information Technology and Broadcasting of the Legislative Council are as follows.

Reception of Radio Signals

As FM radio transmitting stations for broadcasting services are usually located at high hills in order to provide coverage over wide geographical areas and Hong Kong is in close proximity to Guangdong Province, the overspill of some radio signals across the border between the two places is unavoidable. Currently, FM radio broadcasting signals

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of the Mainland can be received in some parts of Hong Kong whereas radio broadcasting signals of Hong Kong can also be received in the Mainland areas adjacent to Hong Kong. We have to point out that radio signals spilled over from the Mainland are **not** interference signals and would not affect the FM radio broadcasting services at both places. It is because the use of FM frequencies in Hong Kong and the Mainland has been technically coordinated to ensure that both parties would not cause interference to the FM radio broadcasting services of the other side.

From January 2014 to April 2016, OFCA had not received any complaint from local radio broadcasters about interference caused by radio signals from the Mainland. During the same period, OFCA received a total of 24 complaint cases (including 15 cases referred by Hon Charles MOK to OFCA in March 2016) of suspected interference caused by radio signals from the Mainland. After conducting on-site investigations, OFCA found that these suspected interference cases were in fact related to frequency tuning of radio sets by the users. The problems had been resolved after OFCA staff's explaining the situation to the complainants and assisting them to retune their radio sets to the appropriate frequencies. For example, in one of the cases referred by Hon MOK, a resident at Wo Che Estate in Shatin suspected that interference caused by radio signals from the Mainland affected his/her reception of RTHK 2 FM channel. However, OFCA confirmed after taking on-site measurements that once the resident tuned the frequency of his/her radio set to 96.3 MHz, he/she could receive the radio signal of RTHK 2 channel from the Beacon Hill transmission station clearly. As a matter of fact, the case was related to frequency tuning rather than interference caused by radio signals from the Mainland.

In fact, there are currently seven major hilltop transmission stations in Hong Kong, covering different geographical areas with different frequencies, delivering seven FM radio channels to the public. The public need to tune their radio sets to the appropriate frequencies corresponding to their reception areas in order to receive the relevant FM radio channels.

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Frequency Coordination Between Guangdong and Hong Kong

According to the spectrum allocation arrangement of the International Telecommunication Union (“ITU”), the use of frequencies in the FM analogue sound broadcasting band has to be shared among neighbouring regions. With reference to the ITU’s recommendations, Hong Kong has allocated the frequency band of 87 MHz – 108 MHz for FM radio broadcasting services. To avoid mutual interference, FM frequencies are generally separated by 0.2 MHz. Technically speaking, there are about 100 FM frequencies available between 87 MHz - 108 MHz. Currently, Hong Kong is using 49 FM frequencies.

The Frequency Coordination Agreement (“the Agreement”) was made by Guangdong and Hong Kong in accordance with the frequency allocation arrangement of the ITU and the principle of sharing frequency spectrum resource on a reasonable and equitable basis. By means of the Agreement, both parties have coordinated their technical standards for avoidance of mutual interference to their radio systems and devised mechanism for handling possible radio frequency interfering cases. Both parties would also hold regular meetings to keep abreast of the development on the use of radio frequencies on both sides and to make coordination arrangements where necessary. The Agreement **does not** restrict the overspill of broadcasting signals to each other’s areas. Even though certain radio signals spilled over from the Mainland could be received in the FM analogue sound broadcasting band in some areas of Hong Kong, this would not breach the coordination requirements of the Agreement so long as such radio signals do not affect the telecommunications and broadcasting services in Hong Kong. Correspondingly, some areas in the Mainland may receive FM analogue sound broadcasting and digital audio broadcasting (“DAB”) signals from Hong Kong in the relevant sound broadcasting bands. In recent years, the transmitting power of Hong Kong’s DAB signal has been increased a few times. As such power increase did not affect the telecommunications and broadcasting services in the Mainland, Hong Kong has not breached the coordination requirements of the Agreement. The Agreement has been functioning smoothly. As the Agreement contains internal information, such as information about the use of frequencies at the neighbouring regions of Guangdong Province, the Agreement cannot be disclosed.

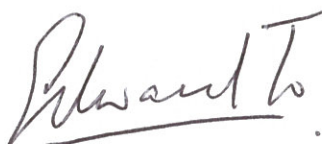
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The concerned reception problems had been resolved after OFCA staff assisted the users to retune their radio sets to the appropriate frequencies. Details of the frequencies assigned to FM radio transmitting stations in Hong Kong can be downloaded from OFCA's website

(http://www.ofca.gov.hk/filemanager/ofca/common/Industry/broadcasting/freq_table_sound_en.pdf), a hard copy of which is also enclosed for Members' reference.

We would be grateful if the Secretariat could pass the above information to members of the Panel for reference.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Edward TO". The signature is written in a cursive style with a horizontal line underneath the name.

(Edward TO)

for Secretary for Commerce and Economic Development

Encl.

c.c. Director-General of Communications

FREQUENCY TABLE FOR ANALOGUE SOUND BROADCASTING SERVICES IN HONG KONG

BROADCASTER	CHANNEL NAME	VHF/FM FREQUENCY (MHz)							MF/AM FREQUENCY (kHz)	
		MOUNT GOUGH	CLOUDY HILL	CASTLE PEAK	GOLDEN HILL	LAMMA ISLAND	BEACON HILL	KOWLOON PEAK	GOLDEN HILL	PENG CHAU
Hong Kong Commercial Broadcasting Company Limited (CRHK)	CR 1	88.1	88.3	88.6	88.9	89.1	89.2	89.5	---	---
	CR 2	90.3	90.7	91.2	90.9	91.6	91.1	92.1	---	---
	AM 864	---	---	---	---	---	---	---	---	864
Radio Television Hong Kong (RTHK)	RTHK Radio 1	92.6	93.2	93.4	92.9	93.6	93.5	94.4	---	---
	RTHK Radio 2	94.8	95.3	96.4	95.6	96.0	96.3	96.9	---	---
	RTHK Radio 3	---	---	---	---	---	---	---	567	---
	RTHK Radio 4	97.6	97.8	98.7	98.4	98.2	98.1	98.9	---	---
	RTHK Radio 5	---	---	---	---	---	---	---	783	---
	RTHK Radio 6	---	---	---	---	---	---	---	---	675
	RTHK Putonghua Channel	---	---	---	---	---	---	---	621	---
Metro Broadcast Corporation Limited (Metro)	Metro Info	99.7	100.0	100.4	101.6	102.1	100.5	101.8	---	---
	Metro Finance	104.0	104.7	102.5	105.5	104.5	102.4	106.3	---	---
	Metro Plus	---	---	---	---	---	---	---	---	1044
Effective Radiated Power (ERP) (kW)		3	0.5	0.7	0.1	0.5	0.15	1	20	10

Note 1 : RTHK Radio 1 is also available locally at 93.6 MHz (FM, 50 W ERP, Hill 374).
RTHK Radio 2 is also available locally at 95.6 MHz (FM, 50 W ERP, Hill 374).
RTHK Radio 3 is also available locally at 97.9 MHz (FM, 20 W ERP, Mt. Nicholson), 106.8 MHz (FM, 150 W ERP, Chung Hom Kok), 107.8 MHz (FM, 15 W ERP, Tseung Kwan O; FM, 25 W ERP, Tin Shui Wai) and 1584 kHz (AM, 100 W ERP, Chung Hom Kok).
RTHK Radio 4 is also available locally at 98.2 MHz (FM, 50 W ERP, Hill 374).
RTHK Radio 5 is also available locally at 92.3 MHz (FM, 25 W ERP, Tin Shui Wai), 95.2 MHz (FM, 20 W ERP, Mt. Nicholson), 99.4 MHz (FM, 15 W ERP, Tseung Kwan O) and 106.8 MHz (FM, 30 W ERP, Castle Peak).
RTHK Putonghua Channel is also available locally at 100.9 MHz (FM, 10 W ERP, Tai Hang Road; FM, 3 W ERP, Castle Peak) and 103.3 MHz (FM, 15 W ERP, Tseung Kwan O; FM, 25 W ERP, Tin Shui Wai).
Metro Info is also available locally at 101 MHz (FM, 10 W ERP, Stanley).
Metro Finance is also available locally at 102.6 MHz (FM, 10 W ERP, Stanley).

Note 2 : All channels from CRHK, RTHK and Metro are rebroadcast inside the traffic tunnels as follows.

TRAFFIC TUNNEL	Tai Wai Sha Tin Heights Eagle's Nest Nam Wan	Cross Harbour	Eastern Harbour	Tate's Cairn	Western Harbour	Tai Lam	Lion Rock	Aberdeen	Kai Tak	Shing Mun	Tseung Kwan O	Cheung Tsing	Discovery Bay
REBROADCAST FREQUENCY	FM - Mount Gough AM - Golden Hill & Peng Chau	FM - Mount Gough AM - Golden Hill & Peng Chau	FM - Kowloon Peak AM - Golden Hill & Peng Chau	FM - Kowloon Peak AM - Golden Hill & Peng Chau	FM - Mount Gough AM - Golden Hill & Peng Chau	FM - Golden Hill AM - Golden Hill & Peng Chau	FM - Mount Gough AM - Golden Hill & Peng Chau	FM - Mount Gough AM - Golden Hill & Peng Chau	FM - Mount Gough AM - Golden Hill & Peng Chau	FM - Golden Hill AM - Golden Hill & Peng Chau	FM - Kowloon Peak AM - Golden Hill & Peng Chau	FM - Mount Gough AM - Golden Hill & Peng Chau	FM - Castle Peak AM - Golden Hill & Peng Chau