

RADIO SPECTRUM AND TECHNICAL STANDARDS
ADVISORY COMMITTEE

Minutes of the Fifteenth Meeting
held at 2:30 p.m., Thursday, 24 August 2017
in Conference Room 2020, Wu Chung House, Wanchai

Present

Mr C K Cheng	Chairman (OFCA staff)
Mr Desmond Chan	Representative of WTT HK Limited
Ms Diana Chan	Representative of the Hong Kong Police Force
Mr Henry Chan	Representative of Hutchison Telephone Company Limited / Hutchison Global Communications Limited / Genius Brand Limited
Mr Eric Chau	Representative of licensees not providing domestic retail fixed services as a group
Mr Alex Cheng	Representative of China Mobile Hong Kong Company Limited
Mr Brian Cheng	Representative of Consumer Council
Mr Alan Choi	Representative of Hong Kong Cable Television Limited / Fantastic Television Limited
Mr Carlson Chu	Representative of PCCW Media Limited / HK Television Entertainment Limited
Mr H M Ho	Ad Personam
Mr H C Hung	Representative of licensees not providing domestic retail fixed services as a group
Mr Dickson Ip	Representative of external FTNS/ fixed carrier licensees/ unified carrier (external fixed services) licensees as a group
Mr S M Ko	Representative of Metro Broadcast Corporation Limited
Mr Allan Kwan	Representative of PCCW Media Limited / HK Television Entertainment Limited
Ir Wilson Kwok	Representative of the Hong Kong Institution of Engineers
Mr Cyrus Lai	Representative of SmarTone Communications Limited / SmarTone Mobile Communications Limited
Mr Michael Lee	Representative of EU ICT Council in Hong Kong and Macau
Dr W C Lee	Representative of the Institution of Engineering and Technology Hong Kong
Mr Simon Leung	Representative of Hong Kong Mobile Television Network Limited
Mr Richard Leung	Representative of Hong Kong Broadband Network Limited / HKBN Enterprise Solutions Limited

Mr M K Li	Representative of local certification bodies as a group
Ms C Y Lo	Representative of Hong Kong Broadband Network Limited / HKBN Enterprise Solutions Limited
Mr Karson Ng	Representative of licensees not providing domestic retail fixed services as a group
Mr S Y Ngan	Representative of Radio Television Hong Kong
Ir Wallace Poon	Representative of the Hong Kong Institution of Engineers
Mr S M Shuen	Representative of Hong Kong Telecommunications (HKT) Limited / PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited
Mr Jing Su	Representative of APT Satellite Company Limited
Ms Vicky Wong	Representative of Asia Satellite Telecommunications Company Limited
Mr L K Yeung	Representative of Civil Aviation Department
Mr L H Ting	Secretary (OFCA staff)

Absent with Apologies

Mr Y P Cheung	Representative of the local industry associations as a group
Mr Paul Lam	Representative of Hong Kong Commercial Broadcasting Company Limited
Mr C T Wong	Representative of services-based operators (MVNO and ETS operators only) as a group
Dr S M Wong	Representative of Independent Commission Against Corruption

In Attendance

Mr C H Chan	OFCA staff
Mr Warren Kwok	OFCA staff
Ms Yvonne Lee	OFCA staff
Mr P H Ma	OFCA staff
Mr Patrick Man	OFCA staff
Ms Gladys Ng	OFCA staff
Mr S Y Yung	OFCA staff

Observer

Mr Y H Chan	Representative of Asia Satellite Telecommunications Company Limited
Mr W L Ho	Representative of amateur radio societies as a group
Mr Simon Kwok	Representative of SmarTone Communications Limited / SmarTone Mobile Communications Limited
Mr Richard Li	Representative of APT Satellite Company Limited

Mr Raymond Tang	Representative of Television Broadcasts Limited / TVB Network Vision Limited
Ms Angel Wong	Representative of Hong Kong Productivity Council
Mr K H Yip	Representative of licensees not providing domestic retail fixed services as a group

Agenda Item 1: Matters Arising from the Previous Meeting

Item 4 of the 14th SSAC Meeting (Proposed Performance Specification for Radio Equipment Operating in the 920 – 925 MHz Band for the Provision of Public Telecommunications Services)

1. The Secretary reported that after the last SSAC meeting, OFCA had not received comments from Members on the draft HKCA 1078 specification. HKCA 1078 would be adopted in due course subject to the finalisation of the relevant licensing framework.

Agenda Item 2: Proposed Allocation of the 5850 – 5925 MHz Band to the Mobile Service (SSAC Paper 2/2017)

2. Mr C H Chan introduced [SSAC Paper 2/2017](#) that proposed the allocation of the frequency band 5850 – 5925 MHz (“the 5.9 GHz band”) to the mobile service, among other existing services, on a co-primary basis in Hong Kong with a view to facilitating the timely introduction of Intelligent Transport Systems (“ITS”) or other mobile applications in future.

3. Ms Vicky Wong said that the 5.9 GHz band was allocated to the fixed-satellite service (“FSS”) in the Earth-to-space (“uplink”) direction on a primary basis and was used worldwide for FSS transmitting earth stations and was commonly used for very small aperture terminal networks having transmitting earth stations at customer premises, with locations and characteristics constantly changing according to customer demands. Such use also included Satellite News Gathering and other nomadic earth stations. She said that FSS operating in the 5.9 GHz band might cause interference to the mobile service in this band and had four questions for OFCA –

- (a) How the sharing situation in Hong Kong could be managed between FSS and the mobile service in the 5.9 GHz band if additional allocation was made to the mobile service in Hong Kong?
- (b) Asia Satellite Telecommunications Company Limited (“AsiaSat”) noticed that ITS was being studied under Agenda Item 1.12 of the

World Radiocommunication Conference to be held in 2019 (“WRC-19”), would this potential new mobile allocation in Hong Kong be limited to ITS use?

- (c) Despite being studied under WRC-19 Agenda Item 1.12, the 5.9 GHz band was not designated for safety services and the band might be subject to interference from other services. Consequently, ITU in their studies under WRC-19 Agenda Item 1.12 concluded that if administrations were contemplating mobile applications in the band, administrations should ensure that the ITS receivers were designed in such a way as to accommodate the potential interference created by FSS earth stations and other incumbent co-primary services. How would OFCA ensure that this requirement was met in respect of current and future earth stations within Hong Kong?
- (d) AsiaSat would like to know if studies being conducted so far under WRC-19 Agenda Item 1.12 had demonstrated that the aggregation of interference from all ITS transmitters would not cause unacceptable interference to receiving space stations of FSS.

4. Mr P H Ma replied that the proposed allocation of the 5.9 GHz band to the mobile service was based on the frequency harmonisation work under Agenda Item 1.12 of the WRC-19, worldwide development of ITS and the relevant discussion in the 14th SSAC meeting held in March 2017. He clarified that the proposed allocation, which complied with ITU Region 3 allocation, was a preparatory work aiming to facilitate the introduction of ITS in Hong Kong in the near future. OFCA would continue to monitor the relevant compatibility studies and the development of ITS, among others, in the 5.9 GHz band. The Chairman supplemented that OFCA was not in a position to comment on the safety aspect of ITS and that OFCA would in due course seek comment of relevant Government departments including the Transport Department as necessary.

5. In response to the Chairman’s invitation for comment, Ms Vicky Wong said that Hong Kong Telecommunications (HKT) Limited (“HKT”) had given a presentation on ITS development at the last SSAC meeting. She would like to know whether HKT had assessed the potential risk of such operation in terms of interference from uplink FSS in Hong Kong or if they had assessed how such operation could accommodate the potential interference created by FSS earth stations operating in Hong Kong. In addition, she asked whether there, in HKT’s view, would be safety issues arising if interference from FSS uplinks into ITS occurred. Mr S M Shuen replied that he was not aware of any detailed studies on this issue. Mr Henry Chan said that the Mainland allowed ITS applications in the 5.9 GHz band and he suggested that OFCA made

reference to the Mainland experience in assessing the compatibility between ITS and FSS. The Secretary pointed out that ITS operating in the 5.9 GHz band in Mainland was a trial system and that OFCA would continue to monitor the relevant compatibility studies conducted by ITU.

6. Ms Vicky Wong said that, in view of the uncertainty on the compatibility between the mobile service and FSS uplink in the 5.9 GHz band, AsiaSat objected to the proposed allocation of the 5.9 GHz band to the mobile service. The Chairman commented that it would be unlikely for ITS to cause interference to FSS uplinks which were transmitting upwards to sky at a much higher transmitting power. Notwithstanding this, Ms Vicky Wong added that AsiaSat would maintain its view unless three conditions were guaranteed –

Condition 1 – the mobile service would not claim protection from FSS nor cause interference to FSS;

Condition 2 – the potential new mobile allocation would not impose additional constraints or restriction to the deployment of FSS uplink earth stations in the 5.9 GHz band in Hong Kong;

Condition 3 – it could be demonstrated that sharing between FSS and the mobile service in this band was feasible in Hong Kong.

She requested OFCA not to allocate the 5.9 GHz band to the mobile service in Hong Kong unless the three conditions above were guaranteed.

7. The Chairman invited Members to provide comments on the proposed frequency allocation within two weeks by 7 September 2017.

[Post-meeting note: APT Satellite Company Limited (“APT”) submitted its comments on SSAC Paper 2/2017 after the meeting. APT claimed that it was unable to conclude a compatible sharing solution between FSS and the mobile service in the 5.9 GHz band due to (a) lack of spectrum demand and supply analysis; (b) lack of technical measures to ensure mutual interference-free; and (c) lack of individual specifics and deployment pattern of ITS. APT considered that further discussion on this issue was required when WRC-19 concluded instructive sharing methodologies.]

Agenda Item 3: Proposed Performance Specification for Radio Transmitting Equipment Operating in the Frequency Band 678 – 686 MHz for the Provision of Broadcast-type Mobile Television Services Employing DVB-T2 Standard (SSAC Paper 3/2017)

8. Mr Warren Kwok introduced [SSAC Paper 3/2017](#) that proposed the adoption of a new HKCA 1079 specification which set out the performance

specification for radio transmitting equipment operating in the frequency band 678 – 686 MHz for the provision of broadcast-type mobile television services employing DVB-T2 standard. Making reference to the harmonised European standard EN 302 296-2, HKCA 1079 aimed to control the out-of-band and spurious emissions of the concerned radio transmitting equipment with a view to ensuring co-existence with terrestrial television services operating in the UHF band. In line with the arrangement of radio transmitting equipment used in the provision of public telecommunications services, equipment covered by the proposed HKCA 1079 specification would be classified under the Compulsory Certification Scheme.

9. Mr Carlson Chu asked whether radio transmitters for mobile television services would only be installed at hilltop sites. Mr Patrick Man said that Hong Kong Mobile Television Network Limited (“HKMTV”) might make use of the existing hilltop sites or new sites to provide the required radio coverage. The Chairman said that, as a general practice, OFCA would process each application for radio installations taking into account, among other things, the electromagnetic compatibility to ensure co-existence with existing services.

10. In reply to Mr Simon Leung, Mr Warren Kwok confirmed that compulsory certification requirement was also imposed on radio transmitters used for the provision of mobile television services employing the China Mobile Multimedia Broadcasting standard. Mr Simon Leung said that during the preparation of the technical details for the provision of broadcast-type mobile television services employing the DVB-T2 standard, HKMTV had never been made aware of the proposed HKCA 1079 specification until this meeting. HKMTV would need time to consult its technical advisor and equipment vendor. The Chairman said that the proposed HKCA 1079 specification was not to be agreed right at the meeting and Members would be given time to comment on it. Ms Gladys Ng said that OFCA had been working closely with HKMTV to facilitate the launch of its mobile television services and, as remarked by the Chairman, HKMTV would be given time to comment on the proposed HKCA 1079 specification.

11. Mr Raymond Tang raised a concern about mobile television radio transmitters installed at rooftop sites causing adjacent channel interference to the existing terrestrial television services. Mr Warren Kwok said that the proposed HKCA 1079 specification included a requirement on spectral emission mask which helped prevent adjacent channel interference. Mr P H Ma said that the adoption of radio transmitter specification and approval of radio transmitter installation were two separate issues. The issue of adjacent channel interference would be addressed when OFCA processed with a view to approving applications for installation of radio transmitters at individual

locations. The Chairman re-affirmed that such potential interference issue would be adequately addressed during the processing of radio installation applications by OFCA.

12. The Chairman invited Members to provide comments on the proposed HKCA 1079 specification within two weeks by 7 September 2017.

Agenda Item 4: Proposed Revision to HKCA 1065 Performance Specification for Multi-Standard Radio (MSR) Base Station (SSAC Paper 4/2017)

13. Mr S Y Yung introduced [SSAC Paper 4/2017](#) that proposed the adoption of a revised HKCA 1065 specification which updated the performance requirements of multi-standard radio base stations when configured to operate in a single standard mode. He pointed out that HKCA 1065 required MSR base stations capable of being configured to operate in a single standard mode to comply with the respective HKCA specifications of the radio access standards. Given that the harmonised European standard for MSR base station, EN 301 908-18, had been updated to cover single standard mode, it was proposed that HKCA 1065 be revised accordingly so that the corresponding single standard requirements stipulated in EN 301 908-18 would be adopted for evaluating MSR base stations operating in a single standard mode.

14. In response to the comment of Mr M K Li, Mr S Y Yung said that that the title of EN 301 908-18 in the proposed Issue 3 of HKCA 1065 would be aligned with the European Union's new Radio Equipment Directive (2014/53/EU).

15. The Chairman invited Members to provide comments on the proposed revised HKCA 1065 specification within two weeks by 7 September 2017.

Agenda Item 5: Any Other Business

16. The Chairman said that on 27 July 2017, the Communications Authority issued a consultation paper and commenced a public consultation on the proposed change in the allocation of the 3.4 – 3.7 GHz band from FSS to the mobile service. Members were welcome to submit response on or before the deadline on 7 September 2017.

17. There being no other business, the meeting was adjourned at 3:45 p.m.

Office of the Communications Authority
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