

RADIO SPECTRUM AND TECHNICAL STANDARDS ADVISORY COMMITTEE

Minutes of the Second Meeting held at 2:30 p.m., Tuesday, 9 October 2012 in Function Room 2501, Wu Chung House, Wanchai

Present

Mr T F So	Chairman (OFCA staff)
Mr Tim Chan	Representative of Metro Broadcast Corporation Limited
Mr Y C Chan	Representative of Television Broadcasts Limited and TVB Pay Vision Limited
Mr Eric Chau	Representative of TraxComm Limited
Mr Alex Cheng	Representative of China Mobile Hong Kong Company Limited and China Mobile Hong Kong Corporation Limited
Mr Brian Cheng	Representative of Consumer Council
Mr H M Cheung	Representative of the Hong Kong Police Force
Mr Carlson Chu	Representative of PCCW Media Limited
Ms C K Chu	Representative of Radio Television Hong Kong
Mr Simon Heung	Representative of Digital Broadcasting Corporation Hong Kong Limited
Mr John Ho	Representative of the Institution of Engineering and Technology Hong Kong
Mr Roger Foo	Representative of Phoenix U Radio Limited
Mr Duncan Fung	Representative of Hong Kong Productivity Council
Mr Clifford Ho	Representative of Towngas Telecommunications Fixed Network Limited
Mr Wai Ho	Representative of Asia Television Limited
Mr H C Hung	Representative of Reach Networks Hong Kong Limited
Mr Eric Fan	Representative of local industry associations as a group
Mr Cyrus Lai	Representative of SmarTone Communications Limited and SmarTone Mobile Communications Limited
Mr Paul Lam	Representative of Hong Kong Commercial Broadcasting Company Limited
Mr Jimmy Lee	Representative of Telstra International HK Limited and Telstra International Limited
Mr Michael Lee	Representative of EU ICT Council in Hong Kong and Macau

Mr Kenneth Ng	Representative of New World Telecommunications Limited
Ms P Y Ngai	Ad Personam
Mr K S Poon	Representative of Metro Broadcast Corporation Limited
Ir Wallace Poon	Representative of the Hong Kong Institution of Engineers
Mr Ken Sit	Representative of Local Certification Bodies as a group
Mr Johnny Siu	Representative of amateur radio societies as a group
Dr K F Tsang	Representative of Institution of Engineering and Technology Hong Kong
Mr Y F Tsui	Representative of Independent Commission against Corruption
Mr Adam Wong	Representative of Hong Kong Telecommunications (HKT) Limited, PCCW-HKT Telephone Limited and Hong Kong
Mr Chris Wong	Representative of ComNet Telecom (HK) Limited
Mr Christopher Wong	Representative of CSL Limited
Dr Simon Wong	Representative of Independent Commission against Corruption
Ms Vicky Wong	Representative of Asia Satellite Telecommunications Company Limited and External FTNS / Fixed Carrier / Unified Carrier (External Fixed Services) Licensees as a group
Mr Bill Yeung	Representative of Wharf T&T Limited
Mr Charles Yeung	Representative of Hong Kong Broadband Network Limited
Mr C K Yuen	Representative of Civil Aviation Department
Mr L H Ting	Secretary (OFCA staff)

Absent with Apologies

Mr Kenneth Chan	Representative of services-based operators (MVNO and ETS operators only) as a group
Mr Xun Chen	Representative of APT Satellite Company Limited
Mr Henry Chan	Representative of Hutchison Telephone Company Limited and Hutchison Global Communications Limited
Mr Albert Luk	Representative of HKC Network Limited
Mr Simon Yu	Representative of Hong Kong Cable Television Limited

In Attendance

Mr P H Ma	OFCA staff
Mr W K Luk	OFCA staff
Mr W K Leung	OFCA staff
Mr K L Tang	OFCA staff
Mr C H Chan	OFCA staff
Mr Michael Leung	OFCA staff
Mr Eric Fung	OFCA staff
Mr S Y Yung	OFCA staff

Observer

Mr Y H Chan	Representative of Asia Satellite Telecommunications Company Limited and External FTNS / Fixed Carrier / Unified Carrier (External Fixed Services) Licensees as a group
Mr W K Cheung	Representative of Hong Kong Telecommunications (HKT) Limited, PCCW-HKT Telephone Limited and Hong Kong
Mr W L Ho	Representative of amateur radio societies as a group

Agenda Item 1: Matters Arising from the Previous Meeting

Items 5 and 8 of the minutes of the 1st SSAC Meeting (review of channel arrangement in the 38 GHz and 26 GHz bands)

1. The Secretary reported that OFCA had received no adverse comment on the proposed channel arrangement for fixed links operating in the 38 GHz and 26 GHz bands. The proposed channelling plans were subsequently approved by the Communications Authority in August 2012. OFCA would process new applications for frequency assignment in accordance with the approved band plans.

Item 14 of the minutes of the 1st SSAC Meeting (review of path lengths of fixed links operating above 10 GHz)

2. The Secretary reported that OFCA had received no adverse comment on the proposed revision to the indicative path lengths. OFCA would process new applications of frequency assignment for fixed link by reference to the revised indicative path lengths, among others.

Item 21 of the minutes of the 1st SSAC Meeting (proposed revision to HKCA 1052 technical standard for Medical Implant Communication Systems)

3. The Secretary reported that OFCA had consulted the Medical Device Control Office (“MDCO”) of the Department of Health with regard to the proposed electrical safety requirement of medical implant communication systems, in response to a comment raised by an SSAC member at the last meeting. No adverse comment was received from MDCO and no further comments were received from SSAC members after the meeting. The revised HKCA 1052 technical standard was approved accordingly and posted on OFCA web site.

Agenda Item 2: Modulation and polarisation schemes of fixed links (SSAC Paper 7/2012)

4. Mr W K Leung introduced [SSAC Paper 7/2012](#) that covered an overview of various modulation and polarisation schemes of fixed links and the implication of different choices on the achievable path length. He pointed out that the indicative path lengths of fixed links operating above 10 GHz as set out in [SSAC Paper 3/2012](#) were also applicable to fixed links employing circular polarisation and a modulation scheme of 256 QAM. Dr K F Tsang considered that the modulation scheme of 256 QAM would likely be more frequently employed in fixed link deployed in future. The Chairman said that OFCA would not limit the spectrum users’ choice of modulation scheme in their frequency applications for use in fixed link. Individual applications would be considered on a case by case basis while the indicative path lengths would serve as guidance for OFCA to assign the appropriate frequency channels for fixed links.

Agenda Item 3: Safety practice for non-ionising radiation protection (SSAC Paper 8/2012)

5. Mr K L Tang introduced [SSAC Paper 8/2012](#) that covered an overview of the safety practice for protection against non-ionising radiation (“NIR”) emitted from mobile phone base stations.

6. Dr Simon Wong noted that OFCA had conducted field measurement of over 300 base stations in the past three years and asked whether the radiation of these base stations fell within the OFCA recommended safety limits. Mr P H Ma replied that the radiation levels of all these base stations fell within the safety limits as required in the “[Code of Practice for the Protection of Workers and Members of Public against Non-Ionizing Radiation Hazards from Radio Transmitting Equipment](#)” issued by the former OFTA. The Chairman added that operators of radiocommunications services were required to ensure that NIR emitted from their transmitting stations would not affect public health. Mr Johnny Siu asked whether the sample checks were conducted with advance notice to the operators. Mr K L Tang replied that OFCA would not notify the operators in advance unless there was difficulty in accessing the measurement locations under the management of the concerned operators.

7. Dr K F Tsang asked whether OFCA would consider setting general guidelines on safety zone for a base station for public reference. The Chairman replied that the size of a safety zone would vary with the base station power, the antenna setting and the surrounding environment, etc. A simple safety zone guideline could not cover all cases and it might lead to misinterpretation. In fact, signs of radiation hazard were used to identify areas where the NIR levels exceeding the safety limit, say near high power base stations such as AM broadcasting sites. Fences to prevent public access would also be installed at locations that were potentially hazardous for inadvertent access. The Chairman pointed out that there was no guideline issued by the World Health Organisation or other international organisations covering specific safety zone limit.

8. Mr Chris Wong asked about the NIR safety of consumer products like Wi-Fi stations, Bluetooth devices and mobile phones. The Chairman replied that OFTA had published the NIR measurement results of some Wi-Fi installations. The measured NIR levels were well below the safety limit. [*Post meeting note: the NIR measurement results of Wi-Fi installations are available at <http://tel.archives.ofca.gov.hk/en/report-paper-guide/report/rp20071012.pdf>.*] Mr K L Tang replied that all mobile phones being sold in Hong Kong should meet the specific absorption rate (“SAR”) requirement and OFCA had also published some leaflets providing mobile phone NIR safety information to the

public. Mr P H Ma supplemented that the SAR levels of type-approved mobile phones had been published on OFCA website. The Chairman added that OFCA also carried out sample checks of mobile phones that have not yet been type-approved. All were found meeting the SAR safety requirement. Mr Brian Cheng asked whether OFCA would conduct any sample check on the SAR levels of type-approved mobile phones. Mr W K Luk replied that as the SAR levels of all type-approved mobile phones had already been tested by accredited laboratories before they were submitted for type-approval, OFCA would rather concentrate its effort on models without being type-approved. Mr John Ho asked whether the SAR test would include mobile phones operating under mal-functioned condition. The Chairman replied that mobile phones were tested under normal condition but at maximum emitted power according to international standards, while mal-functioned condition, given its unpredictable nature, were not considered in the test. Mr Johnny Siu suggested OFCA reporting the sample check results of mobile phone SAR levels to the media. The Chairman noted the suggestion and agreed to consider it.

9. Mr Adam Wong said that the public was not familiar with the knowledge of NIR and was generally concerned about NIR hazards of mobile phone base stations. He suggested OFCA should proactively educate the public that NIR of mobile phone base station should be safe in general by using more effective TV media such as what OFCA has been doing regarding roaming data usage at present. The Chairman replied that OFCA would continue to educate the public regarding the general aspects of NIR safety.

Agenda Item 4: Proposed revision to HKCA 1108, technical standard for digital terrestrial television baseline receiver requirements (SSAC Paper 9/2012)

10. Mr S Y Yung introduced [SSAC Paper 9/2012](#) that covered a proposed revision to HKCA 1108, which removed the reference to basic-tier receivers in the digital terrestrial television (“DTT”) receiver standard since it was for system capable of handling MPEG-2 video only. Mr S Y Yung explained that the proposed revision served to reflect the change of video coding of the DTT programmes on multiple frequency network (“MFN”) from

MPEG-2 to H.264 for higher bandwidth efficiency, following which there would be no more DTT programmes using MPEG-2 coding in Hong Kong.

11. Mr Carlson Chu asked whether MFN would be converted to single frequency network (“SFN”) after the deployment of H.264. The Chairman replied that currently no frequency channel could be made available for territory wide SFN and SFN channels could only be found after the Analogue Switching Off (“ASO”) for TV channels. Mr Simon Heung said that DVB-T2 had been developed as the next generation to the European DTT standard DVB-T and asked whether similar development was made in current DTT standard of Hong Kong. Mr S Y Yung replied that a technical trial had already been conducted earlier in Hong Kong for the Advanced Digital Terrestrial Multimedia Broadcast (“DTMB-A”) technology, which was an enhancement of the DTT standard. Mr Y C Chan supplemented that the DTMB-A test was conducted by the National Engineering Laboratory for Digital TV (Beijing) in Hong Kong with assistance from TVB, ATV and RTHK. The test results had not yet been released and there was no schedule of upgrading the digital TV standard in Hong Kong. The Chairman responded that this forum welcomed the industry to present the latest development of TV standard.

12. Mr H C Hung opined that H.264 would provide better spectrum efficiency and enquired whether the spectrum could be made available for new service providers or the broadcasters would make use of the efficiency gain to improve existing services. Mr Y C Chan pointed out that broadcasters would provide TV programmes of higher video quality to the audience after switching to H.264. Mr Wai Ho concurred with the view of Mr Y C Chan. Regarding the use of TV spectrum, Mr Adam Wong said that industry would like to know the spectrum plan of digital dividend (the “DD plan”) after the ASO. The Chairman replied that the Asia-Pacific Telecommunity (“APT”) had proposed a DD plan and some Asia-Pacific countries had already adopted such a plan. Mr Michael Lee asked whether there was any policy intent regarding the use of the DD plan in Hong Kong. The Chairman replied that OFCA was studying the DD plan and there was not yet any decision on this subject. He invited comment from Members on the proposed revision to HKCA 1108 within 2 weeks, i.e. any comment should be submitted to the Secretary by 24 October 2012.

Agenda Item 5: Update on development of Next Generation Networks (NGN) (October 2012 Issue) (SSAC Paper 10/2012)

13. Mr C H Chan introduced [SSAC Paper 10/2012](#) that updated Members on the international development of NGN. The paper briefly described the recent work of some standards development organisations including ITU and ETSI on Internet of Things (“IoT”), Ultra HDTV (“UHDTV”), 3-Dimensional TV (“3DTV”), IPv4-to-IPv6 transition, and machine-to-machine communications.

14. Mr C H Chan offered a brief introduction of IoT. Mr Michael Lee suggested OFCA exploring the privacy issue of IoT from a regulatory point of view. The Chairman invited Mr Lee to share the concern of privacy issue in the European Community. Mr P H Ma supplemented that there were various applications under IoT and invited Members to exchange views and share any business applications to facilitate OFCA on the development of the respective technical specifications for the products or interconnection. The Chairman encouraged the industry to present their concerns and share information on any topics of interest such as UHDTV / 3DTV and IoT with other Members.

Agenda Item 6: Update on development of international/regional standards organisations (October 2012 Issue) (SSAC Paper 11/2012)

15. Mr W K Luk introduced [SSAC Paper 11/2012](#) that updated Members on the development of telecommunications standards in ITU, ETSI and IEEE. The new medical device communications standards and new Ethernet standard adopted by IEEE, the new 4FF SIM format adopted by ETSI and the latest development of VoLTE in MSF, ETSI and GSMA were outlined.

16. Mr W K Luk offered a brief introduction of various broadband access technologies. The Chairman concluded that the industry could select suitable access technologies to be adopted in Hong Kong, noting that not all standards were suitable for adoption as HKCA specification. He encouraged Members to express their views and concerns to OFCA.

Agenda Item 7: Web-posting of Type Acceptance Criteria (SSAC Paper 12/2012)

17. Mr Eric Fung introduced [SSAC Paper 12/2012](#) that covered the web-posting of type acceptance criteria issued to Local Certification Bodies (“LCBs”) since implementation of the LCB accreditation scheme in October 2009.

18. Mr Ken Sit enquired whether old version of the same type acceptance criteria could be used for processing equipment certification. Mr Eric Fung replied that certification should be based on the latest version of the published type acceptance criteria that would be updated if necessary. The Chairman supplemented that OFCA would consider converting the type acceptance criteria to HKCA specifications for those type of equipment that were widely used and with regional or international standards available for the concerned equipment.

Agenda Item 8: Any Other Business

19. In concluding the meeting, the Chairman announced that the next SSAC meeting would be convened around three months later. There being no other business, the meeting was adjourned at 16:55 p.m.

**Office of the Communications Authority
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