

RADIO SPECTRUM AND TECHNICAL STANDARDS
ADVISORY COMMITTEE

Minutes of the Twenty-sixth Meeting
held at 2:30 p.m., Thursday, 28 June 2022
in Conference Room 2020, Wu Chung House, Wan Chai

Present in person

Mr C K Cheng	Chairman (OFCA staff)
Mr Carlson Chu	Representative of PCCW Media Limited / HK Television Entertainment Limited
Mr C Y Ho	Representative of Civil Aviation Department
Mr K H Lau	Representative of Civil Aviation Department
Mr Alex Tang	Secretary (OFCA staff)

Present online

Mr Henry Chan	Representative of Hutchison Telephone Company Limited / Genius Brand Limited
Mr Desmond Chan	Representative of Hong Kong Broadband Network Limited / HKBN Enterprise Solutions Limited / HKBN Enterprise Solutions HK Limited
Mr S P Chan	Ad Personam
Mr Samuel Chau	Representative of Each Carrier Licensees providing Domestic Retail Fixed Service / Mobile Carrier Licensees
Mr Herman Chow	Representative of Hong Kong Productivity Council
Mr C K Chu	Representative of Radio Television Hong Kong
Ir W Y Chu	Representative of the Hong Kong Institution of Engineers
Prof L Dai	Ad Personam
Mr H C Hung	Representative of Carrier Licensees not providing Domestic Retail Fixed Services as a group
Mr S M Ko	Representative of Metro Broadcast Corporation Limited
Dr Keith Kwok	Representative of Consumer Council
Mr Allan Kwan	Representative of PCCW Media Limited / HK Television Entertainment Limited
Mr Garry Kum	Representative of Television Broadcasts Limited
Mr Voller Lam	Representative of HGC Global Communications Limited
Mr W T Lam	Representative of Hong Kong Productivity Council
Mr Paul Lam	Representative of Hong Kong Commercial Broadcasting Company Limited, representative of Each Sound Broadcasting Licensee

Mr Dennis Lau	Representative of SmarTone Mobile Communications Limited / SmarTone Communications Limited
Mr Adrian Lee	Representative of Hong Kong Telecommunications (HKT) Limited / PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited / PCCW Global (HK) Limited
Mr Larry Lee	Representative of Hong Kong Cable Television Limited / Fantastic Television Limited
Mr Michael Lee	Representative of EU ICT Council in Hong Kong and Macau
Dr Tony Lee	Representative of the Institution of Engineering and Technology Hong Kong
Mr Gary Li	Representative of Local Certification Bodies as a group
Mr Keith Li	Representative of Local Industry Associations as a group
Mr George Mak	Representative of Consumer Council
Mr Karson Ng	Representative of Carrier Licensees not providing domestic retail fixed services as a group
Mr Mike Pan	Representative of Each Carrier Licensees providing Domestic Retail Fixed Service / Mobile Carrier Licensees
Mr W K Shiu	Representative of Hong Kong Police Force
Mr Johnny Siu	Representative of Amateur Radio Societies as a group
Mr J Su	Representative of APT Satellite Company Limited (“APT”)
Ms Vicky Wong	Representative of Asia Satellite Telecommunications Company Limited (“AsiaSat”)
Mr Sheldon Yau	Representative of HKT Limited / PCCW-HKT Telephone Limited and HKT Limited / PCCW Global (HK) Limited
Dr R Zhang	Representative of AsiaSat

Absent with Apologies

Ir John Chan	Representative of the Hong Kong Institution of Engineers
Mr K K Cheung	Representative of External Fixed Carrier / Unified Carrier (external fixed services) Licensees as a group and Carrier Licensees not providing domestic retail fixed services as a group
Dr K F Tsang	Representative of the Institution of Engineering and Technology Hong Kong
Mr Henry Wang	Representative of Localised Wireless Broadband Service / Public Radiocommunications Service / Wireless Internet of Things licensees as a group

In Attendance in person

Mr Tony Yip	OFCA staff
Mr C H Chan	OFCA staff
Mr Eric Fung	OFCA staff
Mr Roger Chan	OFCA staff
Mr Charles Chow	OFCA staff
Mr W L Chung	OFCA staff
Mr Gary Lam	OFCA staff
Mr Ray Ng	OFCA staff
Mr Ken Sit	OFCA staff
Mr Jack Yip	OFCA staff

Observer in person

Dr Eddy Chiu	Representative of Hong Kong Applied Science and Technology Research Institute Company Limited (“ASTRI”)
Mr Nick Fan	Representative of ASTRI
Ms Irene Lau	Representative of Airport Authority Hong Kong
Mr H L Wang	Representative of Rohde & Schwarz Hong Kong Ltd

Observer online

Mr Y H Chan	Representative of AsiaSat
Mr Ken Cheung	Representative of SmarTone Communications Limited
Mr Perry Lai	Representative of Independent Commission Against Corruption
Mr Y C Lee	Representative of SmarTone Communications Limited
Ms Sharon Shi	Representative of APT
Mr K H Yip	Representative of Airport Authority Hong Kong

The Chairman welcomed all participants to the 26th meeting where 19 and some 38 participants attended the meeting in person and online respectively.

Agenda Item 1: Matters Arising**Publication of the Spectrum Release Plan for 2022 - 2024**

2. The Secretary reported that on 24 February 2022, the Communications Authority (“CA”) published the Spectrum Release Plan for 2022 – 2024 to inform the industry of the potential supply of radio spectrum for the following three years, and Members were informed accordingly on the same day.

Item 3 of the 25th SSAC Meeting (Proposed Revision to HKCA 1001, HKCA 1052 and HKCA 2001 (SSAC Paper No. 5/2021))

3. The Secretary reported that OFCA had not received any comment from Members on the proposed revision to HKCA 1001, HKCA 1052 and HKCA 2001 regarding the removal of the requirements on electrical safety of telecommunications apparatus in the standards and specifications prescribed by the CA. The revised specifications were approved and published on 24 June 2022.

Other business of the 25th SSAC Meeting

4. The Secretary reported that in the last meeting, Members were informed of the public consultation in progress in respect of the use of emerging new wireless local area network (“WLAN”) devices operating in the 5925 – 6425 MHz band. The consultation closed on 24 December 2021. Having considered the views and comments received in response to the consultation, the CA created the Class Licence for 6 GHz Device and varied the existing Class Licence for Provision of Public WLAN Services on 29 April 2022, and they were gazetted to take effect on the same day.

Agenda Item 2: Proposed Allocation of the 7235 – 7250 MHz and 9300 – 9900 MHz Bands to Earth Exploration-Satellite Service (SSAC Paper No. 1/2022)

5. Mr Ray Ng introduced SSAC Paper No. 1/2022 about the proposed allocation of the 7235 – 7250 MHz and 9300 – 9900 MHz bands to Earth Exploration-Satellite Service.

6. The Chairman invited Members to provide comments to the proposal, if any, to the Secretary by 12 July 2022.

Agenda Item 3: Presentation by the Consultant on the Results of the Consultancy Study on Non-ionising Radiation Safety of Radio Base Stations

7. The Chairman said that OFCA informed Members about the conduction of a consultancy study on non-ionising radiation (“NIR”) safety of radio base stations (“RBSs”) via SSAC Paper No. 1/2021 as discussed in the 24th SSAC meeting held on 4 May 2021. The said consultancy study had been completed in June 2022. Dr Eddy Chiu representing the consultant presented the

results of the consultancy study by way of PowerPoint slides.

8. Mr Carlson Chu asked whether it might prescribe minimum separation distance between RBS antennae and public accessible area as a criterion for meeting the NIR safety requirements for easy reference by the general public. Dr Eddy Chiu replied that this approach was not feasible as NIR level would vary a lot against a number of factors including antennae characteristics and configuration, operating frequency bands and other RBSs in the vicinity. Dr Eddy Chiu added that if members of the public had concern about NIR safety of RBSs installed near their premises, they could request OFCA to conduct an on-site NIR measurement which was a free service.

9. In response to Mr Carlson Chu's further enquiry, Dr Eddy Chiu said that indoor RBS antennae were covered in the field measurements of the consultancy study and it was considered that their maximum transmitting power should be maintained status quo. The Chairman said that Members might be interested to the consultancy report which would be published on OFCA's website for public reference after all formality was completed.

[Post-meeting note: The aforesaid consultancy report was published on OFCA's website for public access on 2 August 2022.]

10. Mr Sheldon Yau asked whether the consultancy study ever compared human exposure to NIR from RBSs with that from mobile devices. Dr Eddy Chiu replied that the consultancy study focused on NIR safety of RBSs based on the reference levels for exposure of electromagnetic field to the whole human body as recommended in the "Guidelines for Limiting Exposure to Electromagnetic Fields (100 kHz to 300 GHz)" issued by the International Commission on Non-Ionizing Radiation Protection ("ICNIRP"). NIR safety of mobile devices was not covered in the scope of the consultancy study however.

11. Regarding the recommendation that the maximum allowable transmitting power for RBS using massive multiple-input-multiple-output ("mMIMO") antennae could be doubled, Mr Mike Pan suggested that the maximum allowable transmitting power in this regard could be further relaxed taking into account the power reduction factor for mMIMO antennae as revealed by the consultancy study. Dr Eddy Chiu replied that the recommendation had already taken the power reduction factor of mMIMO antennae into consideration. Dr Eddy Chiu further clarified that, while OFCA already allowed RBS using mMIMO antennae to transmit at a higher power level than that of conventional non-mMIMO antennae, it was his understanding that OFCA would discuss with mobile network operators on the applicable transmitting power level.

12. Mr Mike Pan asked whether OFCA would consider adopting a target compliance level against the ICNIRP limits for public accessible areas and households. Mr Eric Fung pointed out that the NIR exposure levels in terms of ICNIRP compliance level were maintained at low levels historically and any significant increase of the compliance level would definitely raise public's concerns. According to the consultant's finding, notwithstanding that NIR levels in public accessible areas would likely rise in the coming years as more frequency bands would be released to public mobile services and the transmitting power levels would be relaxed as per recommendation of the consultancy study, they would continue to be kept within the ICNIRP safety limits. Nonetheless, OFCA would continue to monitor NIR exposure levels in Hong Kong to safeguard the public health.

13. Mr C Y Ho asked whether the NIR assessments conducted by the consultancy study covered different RBS deployment scenarios including RBSs installed at low-rise buildings in old districts where such RBSs were close to public accessible areas. Dr Eddy Chiu replied that the NIR assessments covered different deployment scenarios including those installed on rooftops or at external walls of buildings at low height with multiple antennae, which could reflect the situation in old districts.

14. Mr Henry Chan opined that the level of the maximum allowable transmitting power from RBSs should be reviewed from time to time to cope with the market and industry developments. Dr Eddy Chiu said that, as a deliverable of the consultancy study, a computer simulation tool had been developed to predict and analyse NIR levels in the vicinity of a transmitting RBS. OFCA might make use of the tool to conduct further study on NIR safety of RBSs if required.

15. Mr Y C Lee suggested that the maximum allowable transmitting power of RBS should be considered flexibly and the requirement for RBS installed in uninhabited area could be further relaxed. For instance, RBSs installed at hilltop sites could be allowed to operate at higher transmitting power to provide better coverage to country parks and rural areas. The Chairman said that OFCA would consider such RBS applications on a case-by-case basis.

16. The Chairman thanked Dr Eddy Chiu for the informative presentation. He added that OFCA would consider the recommendations of the consultancy report and inform the mobile network operators concerned on any revision to the maximum allowable transmitting power of RBSs in due course. (Action: OFCA)

Agenda Item 4: Proposed Revision to the Code of Practice for the Protection of Workers and Members of Public Against Non-ionising Radiation Hazards from Radio Transmitting Equipment (SSAC Paper No. 2/2022)

17. Mr Ken Sit presented SSAC Paper No. 2/2022 which proposed update to the Code of Practice for the Protection of Workers and Members of Public Against Non-ionising Radiation Hazards from Radio Transmitting Equipment.

18. The Chairman invited Members to provide comments in this regard, if any, to the Secretary by 12 July 2022.

Agenda Item 5: Outcomes of the World Telecommunication Standardization Assembly (WTSA-20) (SSAC Paper No. 3/2022)

19. Mr C H Chan presented SSAC Paper No. 3/2022 and gave an overview of the major outcomes of WTSA-20 in setting the direction of ITU-T's standardisation work for the study period of 2022-2024.

20. The Chairman said that the next World Telecommunication Standardization Assembly would be held in 2024 and that OFCA would update the Members on the development nearer the time.

Agenda Item 6: Any Other Business

21. The Chairman said that the current service term of SSAC would end on 31 August 2022 and invitation letters to the relevant Members for the new service term would be sent out soon. The Chairman took the opportunity to express sincere gratitude to Members for their active participation in and continuous support to the SSAC.

22. There being no other business, the meeting was adjourned at 4:35 p.m.

**Office of the Communications Authority
July 2022**