

World Radiocommunication Conference 2027

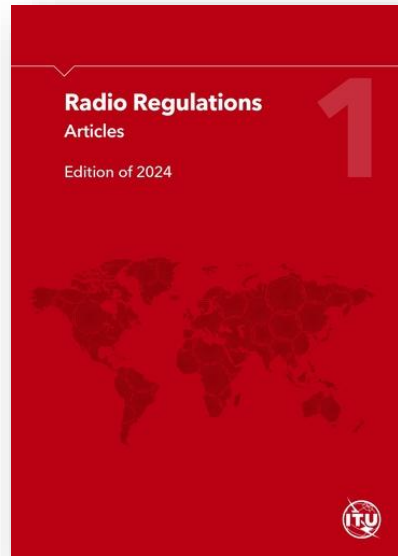
Office of the Communications Authority
July 2026



World Radiocommunication Conference



- World Radiocommunication Conference (“**WRC**”) is held every **three to four years**
- Tasked to review, and if necessary, revise the **Radio Regulations (“RR”)** of the International Telecommunication Union (“**ITU**”). RR is an international treaty governing the use of radio spectrum and satellite orbits –

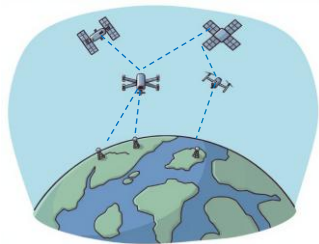


- Revise RR and associated **frequency allocation** and **allotment plans**
- Address **worldwide radiocommunications matters**
- Instruct the **Radio Regulations Board** and the **Radiocommunication Bureau** to take action on relevant matters, and review their activities
- Determine **topics for study** by the Radiocommunication Assemblies and their Study Groups **in** preparation for future WRCs

Relevance to Hong Kong



- Various industry sectors require radio frequency to develop wireless and innovative services
- **Hong Kong follows RR** on radio frequency allocations, frequency coordination with relevant administrations and coordination/notification of satellite orbits for domestic satellite networks



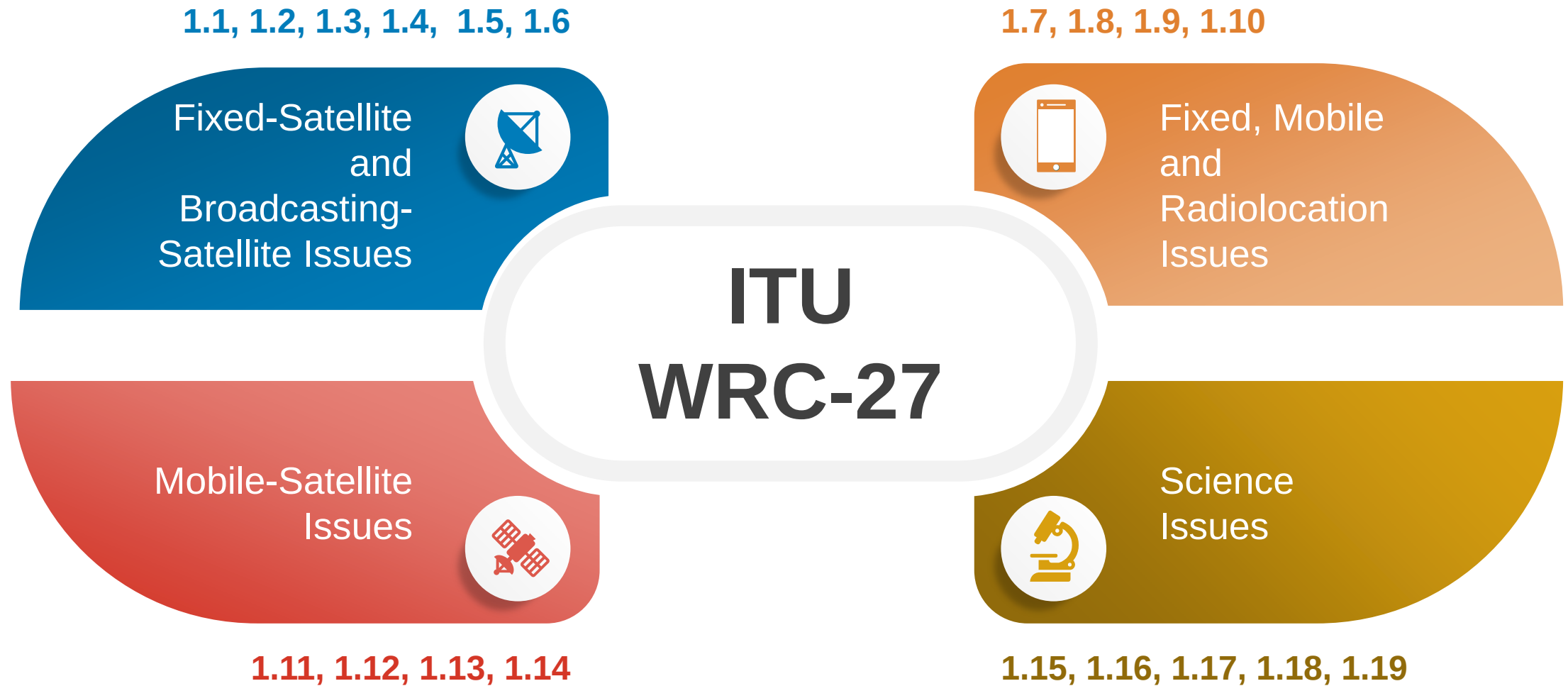
- WRC also seeks to harmonise the use of radio spectrum for specific applications, such as **5G** and the **future 6G** services, wireless local area network, intelligent transport systems, and various satellite applications, etc.
 - Hong Kong will be benefited by, among others, new service applications and wide equipment availability as a result of economy of scale brought by such WRC initiatives

World Radiocommunication Conference 2027

- WRC 2027 (“WRC-27”) will be held from **18 Oct – 12 Nov 2027** in **Shanghai, China**
- Agenda items (“AIs”) for WRC-27 ¹ are specified in Resolution 813 of WRC-23
 - covers **19 Specific Items** and a variety of general issues related to **regulatory and administrative matters**



The 19 Specific Items





Fixed-Satellite and Broadcasting-Satellite Issues

AI 1.1

to consider the technical and operational conditions for the use of the frequency bands **47.2 - 50.2 GHz and 50.4 - 51.4 GHz (Earth-to-space)**, or parts thereof, by **aeronautical and maritime earth stations in motion** communicating with space stations in the **fixed-satellite service** and develop regulatory measures, as appropriate, to facilitate the use of the frequency bands 47.2 - 50.2 GHz and 50.4 - 51.4 GHz (Earth-to-space), or parts thereof, by aeronautical and maritime earth stations in motion communicating with geostationary space stations and non-geostationary space stations in the fixed-satellite service

AI 1.2

to consider possible **revisions of sharing conditions** in the frequency band **13.75 - 14 GHz** to allow the use of **uplink fixed-satellite service** earth stations with smaller antenna sizes

AI 1.3

to consider studies relating to the use of the frequency band **51.4 - 52.4 GHz** to enable use by gateway earth stations transmitting to non-geostationary-satellite orbit systems in the **fixed-satellite service (Earth-to-space)**



Fixed-Satellite and Broadcasting-Satellite Issues (2)

AI 1.4

to consider a possible **new primary allocation** to the **fixed-satellite service (space-to-Earth)** in the frequency band **17.3 - 17.7 GHz** and a possible **new primary allocation** to the **broadcasting-satellite service (space-to-Earth)** in the frequency band **17.3 - 17.8 GHz** in **Region 3**, while ensuring the protection of existing primary allocations in the same and adjacent frequency bands, and to consider equivalent power flux-density limits to be applied in Regions 1 and 3 to non-geostationary-satellite systems in the fixed-satellite service (space-to-Earth) in the frequency band 17.3 - 17.7 GHz

AI 1.5

to consider regulatory measures, and implementability thereof, to **limit the unauthorized operations of non-geostationary-satellite orbit earth stations** in the fixed-satellite and mobile-satellite services and associated issues related to the **service area of non-geostationary-satellite orbit satellite systems** in the **fixed-satellite and mobile-satellite services**

AI 1.6

to consider technical and regulatory measures for **fixed-satellite service** satellite networks/systems in the frequency bands **37.5 - 42.5 GHz (space-to-Earth)**, **42.5 - 43.5 GHz (Earth-to-space)**, **47.2 - 50.2 GHz (Earth-to-space)** and **50.4 - 51.4 GHz (Earth-to-space)** for equitable access to these frequency bands



Fixed, Mobile and Radiolocation Issues

AI 1.7



to consider studies on sharing and compatibility and develop technical conditions for the use of **International Mobile Telecommunications (IMT)** in the frequency bands **4400 - 4800 MHz and 7125 - 8400 MHz (or parts thereof), and 14.8 - 15.35 GHz** taking into account existing primary services operating in these, and adjacent, frequency bands

AI 1.8

to consider possible additional spectrum allocations to the **radiolocation service** on a **primary basis** in the frequency range **231.5 - 275 GHz** and possible new identifications for radiolocation service applications in frequency bands within the frequency range **275 - 700 GHz** for millimetric and sub-millimetric wave imaging systems



Fixed, Mobile and Radiolocation Issues

AI 1.9

to consider appropriate regulatory actions to update Appendix 26 to the Radio Regulations in **support of aeronautical mobile (OR) high frequency modernization**

AI 1.10

to consider developing **power flux-density and equivalent isotropically radiated power limits** for inclusion in Article 21 of the Radio Regulations for the **fixed-satellite, mobile-satellite and broadcasting-satellite services** to protect the fixed and mobile services in the frequency bands **71 - 76 GHz and 81 - 86 GHz**



Mobile-Satellite Issues

AI 1.11

to consider the technical and operational issues, and regulatory provisions, for **space-to-space** links among non-geostationary and geostationary satellites in the frequency bands **1518 - 1544 MHz, 1545 - 1559 MHz, 1610 - 1645.5 MHz, 1646.5 - 1660 MHz, 1670 - 1675 MHz and 2483.5 - 2500 MHz** allocated to the mobile-satellite service

AI 1.12



to consider, based on the results of studies, possible **new allocations** to the mobile-satellite service and possible regulatory actions in the frequency bands **1427 - 1432 MHz (space-to-Earth), 1645.5 - 1646.5 MHz (space-to-Earth) (Earth-to-space), 1880 - 1920 MHz (space-to-Earth) (Earth-to-space) and 2010 - 2025 MHz (space-to-Earth) (Earth-to-space)** required for the future development of low-data-rate non-geostationary mobile-satellite systems



Mobile-Satellite Issues (2)

AI 1.13



to consider studies on possible **new allocations** to the **mobile-satellite service for** direct connectivity between space stations and **International Mobile Telecommunications (IMT)** user equipment to complement terrestrial IMT network coverage

AI 1.14

to consider possible **additional allocations** to the **mobile-satellite service**



Science Issues

AI 1.15

to consider studies on frequency-related matters, including possible **new or modified space research service (space-to-space) allocations**, for future development of **communications on the lunar surface and between lunar orbit and the lunar surface**

AI 1.16

to consider studies on the technical and regulatory provisions necessary to **protect radio astronomy** operating in specific Radio Quiet Zones, and in frequency bands allocated to the radio astronomy service on a primary basis globally, **from aggregate radio-frequency interference caused by non-geostationary-satellite orbit systems**

AI 1.17

to consider regulatory provisions for **receive-only space weather sensors and their protection** in the Radio Regulations, taking into account the results of ITU Radiocommunication Sector studies



Science Issues (2)

AI 1.18

to consider, based on the results of ITU Radiocommunication Sector studies, possible regulatory measures regarding the **protection of the Earth exploration-satellite service (passive) and the radio astronomy service** in certain frequency bands **above 76 GHz** from unwanted emissions of active services

AI 1.19

to consider possible **primary allocations** in all Regions to the **Earth exploration-satellite service (passive)** in the frequency bands **4200 - 4400 MHz and 8400 - 8500 MHz**

Regulatory Matters

AI 7

to consider possible changes, in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference, on **advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks** in order to facilitate the rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit

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AI 8

to consider and take appropriate action on requests from administrations to **delete** their **country footnotes** or to have their country name deleted from footnotes, if no longer required

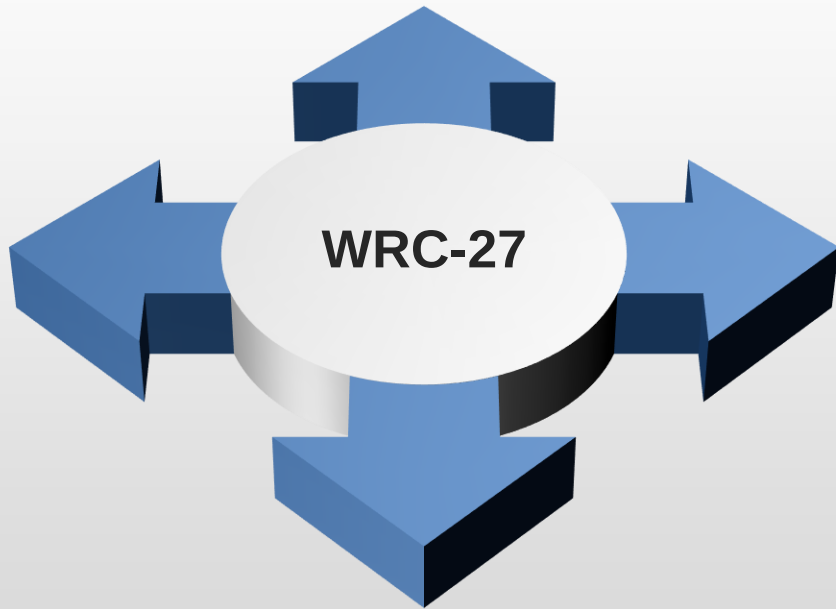
Administrative Matters

	AI 2	to examine the revised ITU Radiocommunication Sector (ITU-R) Recommendations incorporated by reference in RR communicated by the Radiocommunication Assembly, and to decide whether or not to update the corresponding references in RR
	AI 3	to consider such consequential changes and amendments to RR as may be necessitated by the decisions of the conference
	AI 4	to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation
	AI 5	to review, and take appropriate action on, the Report from the Radiocommunication Assembly
	AI 6	to identify those items requiring urgent action by the radiocommunication study groups in preparation for the next WRC

Administrative Matters (2)

	AI 9	to consider and approve the Report of the Director of the Radiocommunication Bureau
		AI 9.1 on the activities of the ITU-R since WRC-23
		AI 9.2 on any difficulties or inconsistencies encountered in the application of RR
		AI 9.3 on action in response to Resolution 80 (Rev. WRC-07)
	AI 10	to recommend to the ITU Council items for inclusion in the agenda for the next WRC, and items for the preliminary agenda of future conferences

Way Forward

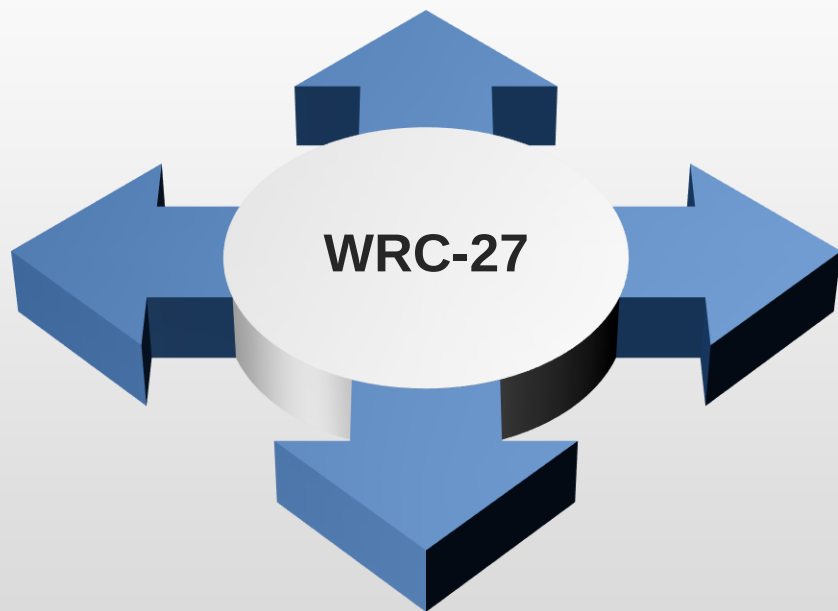


OFCA will –

- Keep in view the **progress** of the ITU-R studies concerned
- Monitor the **development** in WRC-27 and attend relevant **meetings** of Asia-Pacific Telecommunity and ITU



Way Forward (2)



- Members are welcome to submit their **views and comments** on the relevant WRC-27 AIs to OFCA
- OFCA will consolidate all inputs including Members' input and formulate the **Hong Kong preliminary positions** for discussion in SSAC in due course
- OFCA will set out the Hong Kong positions on WRC-27 AIs and coordinate with the **Ministry of Industry and Information Technology (“MIIT”)** of the People's Republic of China to facilitate the formulation of its positions for WRC-27

Thank You