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| A close up of a sign  Description automatically generated | **World Radiocommunication Conference (WRC-23) Dubai, 20 November - 15 December 2023** | |  |
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| PLENARY MEETING | | **Addendum 4 to Document 111-E** | |
|  | | **29 October 2023** | |
|  | | **Original: Chinese** | |
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| China (People's Republic of) | | | |
| Proposals for the work of the Conference | | | |
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| Agenda item 1.4 | | | |

1.4to consider, in accordance with Resolution **247 (WRC‑19)**, the use of high-altitude platform stations as IMT base stations (HIBS) in the mobile service in certain frequency bands below 2.7 GHz already identified for IMT, on a global or regional level;

Introduction

HIBS will use multibeam operations to provide mobile connectivity over a wide area. In certain cases, HIBS is deployed in remote areas, where ground-based IMT base stations are yet to be deployed. Results of studies show that co-frequency compatibility between HIBS and IMT systems in the same geographical area is conditionally feasible but technically very difficult and that compatibility in a cross-border scenario is also challenging. Moreover, sharing and compatibility between broadcasting services and HIBS may not be feasible. Finally, given that several countries have a long border with neighbouring countries or/and regions, it is very challenging to apply pfd limits to ensure protection of existing services during coordination with neighbouring countries.

Proposal

The Administration of China supports Method A1 for Band A, Method B1 for Band B, Method C1 for Band C and Method D1 for Band D as contained in the CPM Report to WRC-23, i.e., no change to the Radio Regulations.

**China proposes NOC to the Radio Regulations in all the frequency ranges mentioned in WRC-23 agenda item 1.4.**

The proposals are detailed below.

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC CHN/111A4/1

460-890 MHz

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| Allocation to services | | | |
| Region 1 | Region 2 | Region 3 | |
| 460-470 FIXED  MOBILE 5.286AA  Meteorological-satellite (space-to-Earth)  5.287 5.288 5.289 5.290 | | | |
| 470-694  BROADCASTING  5.149 5.291A 5.294 5.296  5.300 5.304 5.306 5.312 | 470-512  BROADCASTING  Fixed  Mobile  5.292 5.293 5.295 | 470-585  FIXED  MOBILE 5.296A  BROADCASTING  5.291 5.298 |
| 512-608  BROADCASTING  5.295 5.297 |
| 585-610  FIXED  MOBILE 5.296A  BROADCASTING  RADIONAVIGATION  5.149 5.305 5.306 5.307 |
| 608-614  RADIO ASTRONOMY  Mobile-satellite except aeronautical mobile-satellite (Earth-to-space) |
| 610-890  FIXED  MOBILE 5.296A 5.313A  5.317A  BROADCASTING |
| 614-698  BROADCASTING  Fixed  Mobile  5.293 5.308 5.308A 5.309 |
| 694-790  MOBILE except aeronautical mobile 5.312A 5.317A  BROADCASTING  5.300 5.312 |
| 698-806  MOBILE 5.317A  BROADCASTING  Fixed  5.293 5.309 |
| 790-862  FIXED  MOBILE except aeronautical mobile 5.316B 5.317A  BROADCASTING  5.312 5.319 |
| **806-890**  FIXED  MOBILE 5.317A  BROADCASTING |
| 862-890  FIXED  MOBILE except aeronautical mobile 5.317A  BROADCASTING 5.322 |
| 5.319 5.323 | 5.317 5.318 | 5.149 5.305 5.306 5.307 5.320 |

**Reasons:** HIBS will use multibeam operations to provide mobile connectivity over a wide area. In certain cases, HIBS is deployed in remote areas, where ground-based IMT base stations are yet to be deployed. Study results show that co-frequency compatibility between HIBS and IMT systems in the same geographical area is conditionally feasible but technically very difficult and that compatibility in a cross-border scenario is also challenging. Moreover, sharing and compatibility between broadcasting services and HIBS may not be feasible. Finally, given that several countries have a long border with neighbouring countries or/and regions, it is very challenging to apply pfd limits to ensure protection of existing services during coordination with neighbouring countries.

NOC CHN/111A4/2

890-1 300 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 890-942  FIXED  MOBILE except aeronautical mobile 5.317A  BROADCASTING 5.322  Radiolocation  5.323 | 890-902  FIXED  MOBILE except aeronautical mobile 5.317A  Radiolocation  5.318 5.325 | 890-942  FIXED  MOBILE 5.317A  BROADCASTING  Radiolocation  5.327 |
| 902-928  FIXED  Amateur  Mobile except aeronautical mobile 5.325A  Radiolocation  5.150 5.325 5.326 |
| 928-942  FIXED  MOBILE except aeronautical mobile 5.317A  Radiolocation 5.325 |
| 942-960  FIXED  MOBILE except aeronautical mobile 5.317A  BROADCASTING 5.322  5.323 | 942-960  FIXED  MOBILE 5.317A | 942-960  FIXED  MOBILE 5.317A  BROADCASTING  5.320 |
| 960-1 164 AERONAUTICAL MOBILE (R) 5.327A  AERONAUTICAL RADIONAVIGATION 5.328  5.328AA | | |
| 1 164-1 215 AERONAUTICAL RADIONAVIGATION 5.328  RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B  5.328A | | |
| 1 215-1 240 EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION  RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A  SPACE RESEARCH (active)  5.330 5.331 5.332 | | |
| 1 240-1 300 EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION  RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A  SPACE RESEARCH (active)  Amateur  5.282 5.330 5.331 5.332 5.335 5.335A | | |

**Reasons:** HIBS will use multibeam operation to provide mobile connectivity over a wide area. In certain cases, HIBS is deployed in remote areas, where ground-based IMT base stations are yet to be deployed. Results of studies show that co-frequency compatibility between HIBS and IMT systems in the same geographical area is conditionally feasible but technically very difficult and that compatibility in a cross-border scenario is also challenging. Moreover, sharing and compatibility between broadcasting services and HIBS may not be feasible. Finally, given that several countries have a long border with neighbouring countries or/and regions, it is very challenging to apply pfd limits to ensure protection of existing services during coordination with neighbouring countries.

NOC CHN/111A4/3

1 710-2 170 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 1 710-1 930 FIXED  MOBILE 5.384A 5.388A 5.388B  5.149 5.341 5.385 5.386 5.387 5.388 | | |
| 1 930-1 970  FIXED  MOBILE 5.388A 5.388B | 1 930-1 970  FIXED  MOBILE 5.388A 5.388B  Mobile-satellite (Earth-to-space) | 1 930-1 970  FIXED  MOBILE 5.388A 5.388B |
| 5.388 | 5.388 | 5.388 |
| 1 970-1 980 FIXED  MOBILE 5.388A 5.388B  5.388 | | |
| 1 980-2 010 FIXED  MOBILE  MOBILE-SATELLITE (Earth-to-space) 5.351A  5.388 5.389A 5.389B 5.389F | | |
| 2 010-2 025  FIXED  MOBILE 5.388A 5.388B | 2 010-2 025  FIXED  MOBILE  MOBILE-SATELLITE (Earth-to-space) | 2 010-2 025  FIXED  MOBILE 5.388A 5.388B |
| 5.388 | 5.388 5.389C 5.389E | 5.388 |
| 2 025-2 110 SPACE OPERATION (Earth-to-space) (space-to-space)  EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space)  FIXED  MOBILE 5.391  SPACE RESEARCH (Earth-to-space) (space-to-space)  5.392 | | |
| 2 110-2 120 FIXED  MOBILE 5.388A 5.388B  SPACE RESEARCH (deep space) (Earth-to-space)  5.388 | | |
| 2 120-2 160  FIXED  MOBILE 5.388A 5.388B | 2 120-2 160  FIXED  MOBILE 5.388A 5.388B  Mobile-satellite (space-to-Earth) | 2 120-2 160  FIXED  MOBILE 5.388A 5.388B |
| 5.388 | 5.388 | 5.388 |
| 2 160-2 170  FIXED  MOBILE 5.388A 5.388B | 2 160-2 170  FIXED  MOBILE  MOBILE-SATELLITE (space-to-Earth) | 2 160-2 170  FIXED  MOBILE 5.388A 5.388B |
| 5.388 | 5.388 5.389C 5.389E | 5.388 |

**Reasons:** HIBS will use multibeam operation to provide mobile connectivity over a wide area. In certain cases, HIBS is deployed in remote areas, where ground-based IMT base stations are yet to be deployed. Results of studies show that co-frequency compatibility between HIBS and IMT systems in the same geographical area is conditionally feasible but technically very difficult and that compatibility in a cross-border scenario is also challenging. Moreover, sharing and compatibility between broadcasting services and HIBS may not be feasible. Finally, given that several countries have a long border with neighbouring countries or/and regions, it is very challenging to apply pfd limits to ensure protection of existing services during coordination with neighbouring countries.

NOC CHN/111A4/4

5.388A In Regions 1 and 3, the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz and, in Region 2, the bands 1 885-1 980 MHz and 2 110-2 160 MHz may be used by high altitude platform stations as base stations to provide International Mobile Telecommunications (IMT), in accordance with Resolution **221 (Rev.WRC‑07)**. Their use by IMT applications using high altitude platform stations as base stations does not preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations.     (WRC-12)

**Reasons:** HIBS will use multibeam operation to provide mobile connectivity over a wide area. In certain cases, HIBS is deployed in remote areas, where ground-based IMT base stations are yet to be deployed. Results of studies show that co-frequency compatibility between HIBS and IMT systems in the same geographical area is conditionally feasible but technically very difficult and that compatibility in a cross-border scenario is also challenging. Moreover, sharing and compatibility between broadcasting services and HIBS may not be feasible. Finally, given that several countries have a long border with neighbouring countries or/and regions, it is very challenging to apply pfd limits to ensure protection of existing services during the coordination with neighbouring countries.

NOC CHN/111A4/5

5.388B In Algeria, Saudi Arabia, Bahrain, Benin, Burkina Faso, Cameroon, Comoros, Côte d’Ivoire, China, Cuba, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Gabon, Ghana, India, Iran (Islamic Republic of), Israel, Jordan, Kenya, Kuwait, Lebanon, Libya, Mali, Morocco, Mauritania, Nigeria, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, Senegal, Singapore, Sudan, South Sudan, Tanzania, Chad, Togo, Tunisia, Yemen, Zambia and Zimbabwe, for the purpose of protecting fixed and mobile services, including IMT mobile stations, in their territories from co‑channel interference, a high altitude platform station (HAPS) operating as an IMT base station in neighbouring countries, in the frequency bands referred to in No. 5.388A, shall not exceed a co-channel power flux-density of −127 dB(W/(m2 · MHz)) at the Earth’s surface outside a country’s borders unless explicit agreement of the affected administration is provided at the time of the notification of HAPS.    (WRC‑19)

**Reasons:** HIBS will use multibeam operation to provide mobile connectivity over a wide area. In certain cases, HIBS is deployed in remote areas, where ground-based IMT base stations are yet to be deployed. Results of studies show that co-frequency compatibility between HIBS and IMT systems in the same geographical area is conditionally feasible but technically very difficult and that compatibility in a cross-border scenario is also challenging. Moreover, sharing and compatibility between broadcasting services and HIBS may not be feasible. Finally, given that several countries have a long border with neighbouring countries or/and regions, it is very challenging to apply pfd limits to ensure protection of existing services during the coordination with neighbouring countries.

NOC CHN/111A4/6

2 170-2 520 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 2 170-2 200 FIXED  MOBILE  MOBILE-SATELLITE (space-to-Earth) 5.351A  5.388 5.389A 5.389F | | |
| 2 200-2 290 SPACE OPERATION (space-to-Earth) (space-to-space)  EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space)  FIXED  MOBILE 5.391  SPACE RESEARCH (space-to-Earth) (space-to-space)  5.392 | | |
| 2 290-2 300 FIXED  MOBILE except aeronautical mobile  SPACE RESEARCH (deep space) (space-to-Earth) | | |
| 2 300-2 450  FIXED  MOBILE 5.384A  Amateur  Radiolocation | 2 300-2 450  FIXED  MOBILE 5.384A  RADIOLOCATION  Amateur | |
| 5.150 5.282 5.395 | 5.150 5.282 5.393 5.394 | |
| 2 450-2 483.5  FIXED  MOBILE  Radiolocation  5.150 | 2 450-2 483.5  FIXED  MOBILE  RADIOLOCATION  5.150 | |
| 2 483.5-2 500  FIXED  MOBILE  MOBILE-SATELLITE (space-to-Earth) 5.351A  RADIODETERMINATION- SATELLITE (space-to-Earth) 5.398  Radiolocation 5.398A | 2 483.5-2 500  FIXED  MOBILE  MOBILE-SATELLITE (space-to-Earth) 5.351A  RADIOLOCATION  RADIODETERMINATION- SATELLITE (space-to-Earth) 5.398 | 2 483.5-2 500  FIXED  MOBILE  MOBILE-SATELLITE (space-to-Earth) 5.351A  RADIOLOCATION  RADIODETERMINATION- SATELLITE (space-to-Earth) 5.398 |
| 5.150 5.399 5.401 5.402 | 5.150 5.402 | 5.150 5.401 5.402 |
| 2 500-2 520  FIXED 5.410  MOBILE except aeronautical mobile 5.384A | 2 500-2 520  FIXED 5.410  FIXED-SATELLITE (space-to-Earth) 5.415  MOBILE except aeronautical mobile 5.384A | 2 500-2 520  FIXED 5.410  FIXED-SATELLITE (space-to-Earth) 5.415  MOBILE except aeronautical mobile 5.384A  MOBILE-SATELLITE (space-to-Earth) 5.351A 5.407 5.414 5.414A |
| 5.412 |  | 5.404 5.415A |

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NOC CHN/111A4/7

2 520-2 700 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 2 520-2 655  FIXED 5.410  MOBILE except aeronautical mobile 5.384A  BROADCASTING-SATELLITE 5.413 5.416 | 2 520-2 655  FIXED 5.410  FIXED-SATELLITE (space-to-Earth) 5.415  MOBILE except aeronautical mobile 5.384A  BROADCASTING-SATELLITE 5.413 5.416 | 2 520-2 535  FIXED 5.410  FIXED-SATELLITE (space-to-Earth) 5.415  MOBILE except aeronautical mobile 5.384A  BROADCASTING-SATELLITE 5.413 5.416 |
|  |  | 5.403 5.414A 5.415A |
|  |  | 2 535-2 655  FIXED 5.410  MOBILE except aeronautical mobile 5.384A  BROADCASTING-SATELLITE 5.413 5.416 |
| 5.339 5.412 5.418B 5.418C | 5.339 5.418B 5.418C | 5.339 5.418 5.418A 5.418B 5.418C |
| 2 655-2 670  FIXED 5.410  MOBILE except aeronautical mobile 5.384A  BROADCASTING-SATELLITE 5.208B 5.413 5.416  Earth exploration-satellite (passive)  Radio astronomy  Space research (passive) | 2 655-2 670  FIXED 5.410  FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.415  MOBILE except aeronautical mobile 5.384A  BROADCASTING-SATELLITE 5.413 5.416  Earth exploration-satellite (passive)  Radio astronomy  Space research (passive) | 2 655-2 670  FIXED 5.410  FIXED-SATELLITE (Earth-to-space) 5.415  MOBILE except aeronautical mobile 5.384A  BROADCASTING-SATELLITE 5.208B 5.413 5.416  Earth exploration-satellite (passive)  Radio astronomy  Space research (passive) |
| 5.149 5.412 | 5.149 5.208B | 5.149 5.420 |
| 2 670-2 690  FIXED 5.410  MOBILE except aeronautical mobile 5.384A  Earth exploration-satellite (passive)  Radio astronomy  Space research (passive) | 2 670-2 690  FIXED 5.410  FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.208B 5.415  MOBILE except aeronautical mobile 5.384A  Earth exploration-satellite (passive)  Radio astronomy  Space research (passive) | 2 670-2 690  FIXED 5.410  FIXED-SATELLITE (Earth-to-space) 5.415  MOBILE except aeronautical mobile 5.384A  MOBILE-SATELLITE (Earth-to-space) 5.351A 5.419  Earth exploration-satellite (passive)  Radio astronomy  Space research (passive) |
| 5.149 5.412 | 5.149 | 5.149 |
| 2 690-2 700 EARTH EXPLORATION-SATELLITE (passive)  RADIO ASTRONOMY  SPACE RESEARCH (passive)  5.340 5.422 | | |

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