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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 toDocument 111-E** |
|  | **29 October 2023** |
|  | **Original: Chinese** |
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| China (People's Republic of) |
| Proposals for the work of the Conference |
|  |
| 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 |
| 470-694BROADCASTING5.149 5.291A 5.294 5.296 5.300 5.304 5.306 5.312 | 470-512BROADCASTINGFixedMobile5.292 5.293 5.295 | 470-585FIXEDMOBILE 5.296ABROADCASTING5.291 5.298 |
| 512-608BROADCASTING5.295 5.297  |
| 585-610FIXEDMOBILE 5.296ABROADCASTINGRADIONAVIGATION5.149 5.305 5.306 5.307 |
| 608-614RADIO ASTRONOMYMobile-satellite exceptaeronautical mobile-satellite(Earth-to-space) |
| 610-890FIXEDMOBILE 5.296A 5.313A 5.317A BROADCASTING |
| 614-698BROADCASTINGFixedMobile5.293 5.308 5.308A 5.309  |
| 694-790MOBILE except aeronautical mobile 5.312A 5.317ABROADCASTING5.300 5.312 |
| 698-806MOBILE 5.317ABROADCASTINGFixed5.293 5.309  |
| 790-862FIXEDMOBILE except aeronautical mobile 5.316B 5.317ABROADCASTING5.312 5.319 |
| **806-890**FIXEDMOBILE 5.317ABROADCASTING |
| 862-890FIXEDMOBILE except aeronauticalmobile 5.317ABROADCASTING 5.322 |
| 5.319 5.323 | 5.317 5.318 | 5.149 5.305 5.306 5.3075.320 |

**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 |
| 890-942FIXEDMOBILE except aeronautical mobile 5.317ABROADCASTING 5.322Radiolocation5.323 | 890-902FIXEDMOBILE except aeronautical mobile 5.317ARadiolocation5.318 5.325 | 890-942FIXEDMOBILE 5.317ABROADCASTINGRadiolocation5.327 |
| 902-928FIXEDAmateurMobile except aeronautical mobile 5.325ARadiolocation5.150 5.325 5.326 |
| 928-942FIXEDMOBILE except aeronautical mobile 5.317ARadiolocation5.325 |
| 942-960FIXEDMOBILE except aeronautical mobile 5.317ABROADCASTING 5.3225.323 | 942-960FIXEDMOBILE 5.317A | 942-960FIXEDMOBILE 5.317ABROADCASTING5.320 |
| 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 970FIXEDMOBILE 5.388A 5.388B | 1 930-1 970FIXEDMOBILE 5.388A 5.388BMobile-satellite (Earth-to-space) | 1 930-1 970FIXEDMOBILE 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 025FIXEDMOBILE 5.388A 5.388B | 2 010-2 025FIXEDMOBILEMOBILE-SATELLITE(Earth-to-space) | 2 010-2 025FIXEDMOBILE 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 160FIXEDMOBILE 5.388A 5.388B | 2 120-2 160FIXEDMOBILE 5.388A 5.388BMobile-satellite (space-to-Earth) | 2 120-2 160FIXEDMOBILE 5.388A 5.388B |
| 5.388 | 5.388 | 5.388 |
| 2 160-2 170FIXEDMOBILE 5.388A 5.388B | 2 160-2 170FIXEDMOBILEMOBILE-SATELLITE(space-to-Earth) | 2 160-2 170FIXEDMOBILE 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 450FIXEDMOBILE 5.384AAmateurRadiolocation | 2 300-2 450 FIXED MOBILE 5.384A RADIOLOCATION Amateur |
| 5.150 5.282 5.395 |  5.150 5.282 5.393 5.394  |
| 2 450-2 483.5FIXEDMOBILERadiolocation5.150 | 2 450-2 483.5 FIXED MOBILE RADIOLOCATION 5.150 |
| 2 483.5-2 500FIXEDMOBILEMOBILE-SATELLITE(space-to-Earth) 5.351ARADIODETERMINATION-SATELLITE(space-to-Earth) 5.398Radiolocation 5.398A | 2 483.5-2 500FIXEDMOBILEMOBILE-SATELLITE(space-to-Earth) 5.351ARADIOLOCATIONRADIODETERMINATION-SATELLITE(space-to-Earth) 5.398 | 2 483.5-2 500FIXEDMOBILEMOBILE-SATELLITE(space-to-Earth) 5.351ARADIOLOCATIONRADIODETERMINATION-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 520FIXED 5.410MOBILE except aeronautical mobile 5.384A | 2 500-2 520FIXED 5.410FIXED-SATELLITE (space-to-Earth) 5.415MOBILE except aeronautical mobile 5.384A | 2 500-2 520FIXED 5.410FIXED-SATELLITE (space-to-Earth) 5.415MOBILE except aeronautical mobile 5.384AMOBILE-SATELLITE (space-to-Earth) 5.351A 5.407 5.414 5.414A |
| 5.412 |  | 5.404 5.415A |

**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/111A4/7

2 520-2 700 MHz

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| Allocation to services |
| Region 1 | Region 2 | Region 3 |
| 2 520-2 655FIXED 5.410MOBILE except aeronauticalmobile 5.384ABROADCASTING-SATELLITE5.413 5.416 | 2 520-2 655FIXED 5.410FIXED-SATELLITE(space-to-Earth) 5.415MOBILE except aeronauticalmobile 5.384ABROADCASTING-SATELLITE5.413 5.416 | 2 520-2 535FIXED 5.410FIXED-SATELLITE(space-to-Earth) 5.415MOBILE except aeronauticalmobile 5.384ABROADCASTING-SATELLITE5.413 5.416 |
|  |  | 5.403 5.414A 5.415A |
|  |  | 2 535-2 655FIXED 5.410MOBILE except aeronauticalmobile 5.384ABROADCASTING-SATELLITE5.413 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 670FIXED 5.410MOBILE except aeronauticalmobile 5.384ABROADCASTING-SATELLITE5.208B 5.413 5.416Earth exploration-satellite(passive)Radio astronomySpace research (passive) | 2 655-2 670FIXED 5.410FIXED-SATELLITE(Earth-to-space)(space-to-Earth) 5.415MOBILE except aeronauticalmobile 5.384ABROADCASTING-SATELLITE5.413 5.416Earth exploration-satellite(passive)Radio astronomySpace research (passive) | 2 655-2 670FIXED 5.410FIXED-SATELLITE(Earth-to-space) 5.415MOBILE except aeronauticalmobile 5.384ABROADCASTING-SATELLITE 5.208B 5.413 5.416 Earth exploration-satellite(passive)Radio astronomySpace research (passive) |
| 5.149 5.412 | 5.149 5.208B | 5.149 5.420 |
| 2 670-2 690FIXED 5.410MOBILE except aeronautical mobile 5.384AEarth exploration-satellite(passive)Radio astronomySpace research (passive) | 2 670-2 690FIXED 5.410FIXED-SATELLITE(Earth-to-space)(space-to-Earth) 5.208B 5.415MOBILE except aeronauticalmobile 5.384AEarth exploration-satellite(passive)Radio astronomySpace research (passive) | 2 670-2 690FIXED 5.410FIXED-SATELLITE(Earth-to-space) 5.415MOBILE except aeronauticalmobile 5.384AMOBILE-SATELLITE(Earth-to-space) 5.351A 5.419Earth exploration-satellite(passive)Radio astronomySpace 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 |

**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.

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