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| **World Radiocommunication Conference (WRC-19) Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
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| PLENARY MEETING | **Addendum 14 to Document 92-E** |
|  | **11 October 2019** |
|  | **Original: English** |
|  | |
| India (Republic of) | |
| Proposals for the work of the conference | |
|  | |
| Agenda item 1.14 | |

1.14 to consider, on the basis of ITU-R studies in accordance with Resolution **160 (WRC‑15)**, appropriate regulatory actions for high-altitude platform stations (HAPS), within existing fixed-service allocations;

# 1 Background

WRC-19 agenda item 1.14 aims to study any spectrum needs for gateway and fixed terminal links for High Altitude Platform Stations (HAPS) to provide broadband connectivity in remote areas, including mountainous, coastal and sandy desert areas.

HAPS is defined in No. **1.66A** of the Radio Regulations as “*A station located on an object at an altitude of 20 to 50 km and at a specified, nominal, fixed point relative to the Earth*”. Under this agenda item, additional spectrum needs for gateway and fixed terminal links for HAPS have been considered pursuant to Resolution **160 (WRC‑15)**.

The sharing studies conducted by ITU-R considered the following frequency ranges:

– 6 440-6 520 MHz;

– 21.4-22 GHz (Region 2 only);

– 24.25-27.5 GHz (Region 2 only);

– 27.9-28.2 GHz and 31-31.3 GHz;

– 38-39.5 GHz;

– 47.2-47.5 GHz and 47.9-48.2 GHz.

# 2 Views

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| Alternative | Method | Option | Remarks |
| – | A | – | No change in the RR. Frequency bands 6 440-6 520 MHz |
| – | A | – | No change in the RR. Frequency bands 6 560-6 640 MHz |
| – | A | – | No change in the RR. Frequency bands 27.9-28.2 GHz |
| – | A | – | No change in the RR. Frequency bands 31-31.3 GHz |
| – | A | – | No change in the RR. Frequency bands 38-39.5 GHz |
| – | A | – | No change in the RR. Frequency bands 47.2-47.5 GHz / 47.9-48.2 GHz |

# 3 Proposal NOC

**Reasons:** For utilization of HAPS application India has already identified 27.9-28.2 GHz and 31.0-31.3 GHz bands through footnote RR Nos. **5.537A** and **5.543A**.

ARTICLE 5

Frequency allocations

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

NOC IND/92A14/1

5 570-6 700 MHz

NOC IND/92A14/2

24.75-29.9 GHz

NOC IND/92A14/3

29.9-34.2 GHz

NOC IND/92A14/4

34.2-40 GHz

NOC IND/92A14/5

40-47.5 GHz

NOC IND/92A14/6

47.5-51.4 GHz

NOC IND/92A14/7#49797

RESOLUTION 122 (rev.WRC‑07)

Use of the bands 47.2-47.5 GHz and 47.9-48.2 GHz by high altitude platform stations in the fixed service and by other services

NOC IND/92A14/8#49765

RESOLUTION 145 (Rev.WRC‑12)

Use of the bands 27.9-28.2 GHz and 31-31.3 GHz by   
high altitude platform stations in the fixed service

NOC IND/92A14/9#49729

RESOLUTION 150 (WRC‑12)

Use of the bands 6 440-6 520 MHz and 6 560-6 640 MHz by gateway links   
for high-altitude platform stations in the fixed service

SUP IND/92A14/10#49813

RESOLUTION 160 (WRC-15)

Facilitating access to broadband applications delivered by high-altitude platform stations

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