

**PLENARY MEETING**

**Addendum 10 to  
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9 September 2019  
Original: English**

**Member States of the Inter-American Telecommunication Commission (CITEL)**

**PROPOSALS FOR THE WORK OF THE CONFERENCE**

Agenda item 10

*{Temporary information note to be deleted before the submission via CPI of this document to the WRC-19 Secretariat: In accordance with Resolution 804 (Rev. WRC-12), Administrations are invited to use the template provided in Annex 2 to that Resolution (TIES-protected) when proposing agenda items for WRCs. This template may be filled out for each of the proposed WRC agenda item and annexed to this document.}*

10 to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, in accordance with Article 7 of the Convention.

**Background Information:**

WRC-15 adopted Resolution **155 (WRC-15)** to enable earth stations on board unmanned aircraft which operate with geostationary-satellite networks in the frequency bands 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), 11.7-12.2 GHz (space-to-Earth) in Region 2, 12.2-12.5 GHz (space-to-Earth) in Region 3, 12.5-12.75 GHz (space-to-Earth) in Regions 1 and 3 and 19.7-20.2 GHz (space-to-Earth), and in the frequency bands 14-14.47 GHz (Earth-to-space) and 29.5-30.0 GHz (Earth-to-space) allocated to the fixed-satellite service not subject to Appendices **30**, **30A** and **30B**. These earth stations are to support the control and non-payload communications (CNPC) of unmanned aircraft systems (UAS). WRC-15 also adopted RR No. **5.484B** into the Table of Frequency Allocations that references Resolution **155 (WRC-15)**.

**Proposals**

Resolution **155 (WRC-15)** includes in its resolves specific issues to be taken into account for communication between an earth station on-board an unmanned aircraft and a geostationary-satellite network of the fixed-satellite service. As the content of required international aeronautical standards and recommended practices (SARPs) was not yet underway at the time of the conference,

WRC-15 resolved to (1) invite WRC-23 to consider the results of those yet-to-be-developed studies with a view to reviewing and, if necessary, revising Resolution **155**, and (2) take necessary actions, as appropriate.

Conclusion of this matter will provide the basis for the Director of the Radiocommunication Bureau to decide on the processing of respective satellite network filings through *instructs the Director of the Radiocommunication Bureau 4* of Resolution **155 (WRC-15)**.

During the study period 2015 – 2019 studies in response of *Resolves 16* and *Resolves 4* and *5* were undertaken:

- The identification and compilation of notified satellite networks operating in the FSS and of UAS CNPC Earth station characteristics in response to *Resolves 4* and *5* are being prepared in Report ITU-R M.[UAV\_SYS\_CHAR] considering:
  - Data rates for CNPC links based, in part, on Report ITU-R M.2171-0 and provided by ICAO.
  - Performance and system characteristics of representative FSS space stations operated within the notified and recorded technical parameters as published by the Radiocommunication Bureau.
  - Operational scenarios provided by ICAO.
  - In response to *Resolves 14* and *15* on revising the power flux-density hard limits in Annex 2 of Resolution **155 (WRC-15)** for protecting the terrestrial services from harmful interference in the applicable frequency band 14-14.47 GHz, the ITU-R has been developing a new mask in Report ITU-R M.[UAV\_PFD]. *Resolves 16* of Resolution **155 (WRC-15)** indicates that the update of Annex 2 of Resolution **155 (WRC-15)** is expected at WRC-19.

It should be further noted that ICAO developed its first package of Standards and Recommended Practices regarding CNPC for UAS. ICAO is currently developing its second package of SARPs, which it indicates it plans to complete by 2022, on specific techniques for CNPC links that will operate within the required ITU regulatory environment in respect of the use of FSS networks for UAS CNPC links. *Resolves 5* and *6* of **Resolution 155 (WRC-15)** require that earth stations on board UAS operate within the notified and recorded technical parameters of the associated satellite network and that such UAS earth stations shall not claim more protection nor cause more interference from other satellite networks and systems than the specific or typical earth stations of the notified and recorded satellite network. The obligations under *Resolves 5* and *6* are to be maintained in any modifications of **Resolution 155 (WRC-15)**.

Finally, to ensure compliance with the provisions of Resolution **155 (WRC-15)** when implementing CNPC for UAS, WRC-23 must also undertake a review and possible revision of footnote RR No. **5.484B**.

**ADD IAP/6419A24A10/1**

**DRAFT NEW RESOLUTION [IAP/10(J) -2023] (WRC-19)**

**Agenda for the 2023 World Radiocommunication Conference**

The World Radiocommunication Conference (Sharm-el-Sheikh, 2019),

*considering*

- a) that, in accordance with No. 118 of the ITU Convention, the general scope of the agenda for a world radiocommunication conference should be established four to six years in advance and that a final agenda shall be established by the Council two years before the conference;
- b) Article 13 of the ITU Constitution relating to the competence and scheduling of world radiocommunication conferences and Article 7 of the Convention relating to their agendas;
- c) the relevant resolutions and recommendations of previous world administrative radio conferences (WARCs) and world radiocommunication conferences (WRCs),

*resolves*

to recommend to the Council that a world radiocommunication conference be held in 2023 for a maximum period of four weeks, with the following agenda:

1 on the basis of proposals from administrations, taking account of the results of WRC-19 and the Report of the Conference Preparatory Meeting, and with due regard to the requirements of existing and future services in the bands under consideration, to consider and take appropriate action in respect of the following items:

1.[UAS.CNPC] to consider, on the basis of ITU-R studies in accordance with Resolution **[IAP/10(J)/Res155] (WRC-19)**, appropriate regulatory actions, with a view to reviewing and, if necessary, revising Resolution **155 (WRC-15)** and RR No. **5.484B** to accommodate the use of fixed-satellite service (FSS) networks by Control and Non-Payload Communications of Unmanned Aircraft Systems;

*resolves further*

to activate the Conference Preparatory Meeting,

*invites the Council*

to finalize the agenda and arrange for the convening of WRC-23, and to initiate as soon as possible the necessary consultations with Member States,

*instructs the Director of the Radiocommunication Bureau*

to make the necessary arrangements to convene meetings of the Conference Preparatory Meeting and to prepare a report to WRC-23,

*instructs the Secretary-General*

to communicate this Resolution to international and regional organizations concerned.

**Reasons:** Resolution **155 (WRC-15)** calls for the review and possible revision at WRC-23.

**ADD IAP/6419A24A10/2**

DRAFT NEW RESOLUTION [IAP/10(J)/RES155] (WRC-19)

**Review and possible Revision of Resolution 155 (WRC-15) and RR No. 5.484B in the frequency bands to which they apply to accommodate the use of FSS networks by Control and Non-Payload Communications of Unmanned Aircraft Systems**

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

*considering*

- a) that there is urgency to conclude developing regulatory provisions for enabling access to fixed-satellite service (FSS) allocations to support implementation of Unmanned Aircraft Systems (UAS) Control and Non-Payload Communications (CNPC) links;
- b) that ITU-R has made substantive progress implementing the *Resolves* in Resolution **155 (WRC-15)**;
- c) that ICAO is developing the Standards and Recommended Practices (SARPs) to ensure the technical aspects of FSS satellites can provide safe and reliable UAS CNPC links,

*recognizing*

- a) that Resolution **155 (WRC-15)** resolves to invite the 2023 World Radiocommunication Conference to consider the results of ITU-R studies with a view to reviewing and, if necessary, revising Resolution **155 (WRC-15)**, and take necessary actions, as appropriate;
- b) that RR No. **5.484B** adopted at WRC-15 makes reference to Resolution **155 (WRC-15)** in the Table of Frequency Allocations without language that ensures compliance with those provisions;
- c) that the obligations under *Resolves 5 and 6* are to be maintained in any modifications of **Resolution 155 (WRC-15)**,

*resolves to invite ITU-R*

- 1) to conduct in time for WRC-23 relevant studies of the technical, operational, and regulatory aspects in relation to the implementation of Resolution **155 (WRC-15)**;
- 2) to conduct in time for WRC-23 relevant studies of RR No. **5.484B** and identify any necessary revisions to ensure compliance with the provisions of Resolution **155 (WRC-15)** when implementing CPNC for UAS,

*further resolves to invite WRC-23*

to take, on the basis of the studies conducted under the *resolves to invite ITU-R* above, appropriate regulatory actions.

**Reasons:** A resolution will support the ITU-R studies needed under the relevant WRC-23 agenda item.

**SUP IAP/6419A24A10/3**

## RESOLUTION 810 (WRC-15)

### **Preliminary agenda for the 2023 World Radiocommunication Conference**

The World Radiocommunication Conference (Geneva, 2015),

**Reasons:** This Resolution must be suppressed, as WRC-19 will create a new Resolution that will include the agenda for WRC-23.

## ATTACHMENT

**Subject:** Proposed Future WRC Agenda Item for WRC-2023 to consider the results of studies on the Review and possible Revision of Resolution **155 (WRC-15)** and RR No. **5.484B** in the frequency bands to which they apply to accommodate the use of fixed-satellite service (FSS) networks by Control and Non-Payload Communications (CNPC) of Unmanned Aircraft Systems

**Origin:** the CITEL Member States

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*Proposal:*

1.[UAS.CNPC] to consider, on the basis of ITU-R studies in accordance with Resolution [USA/10/XX] (WRC-19), appropriate regulatory actions, with a view to reviewing and, if necessary, revising Resolution **155 (WRC-15)** and RR No. **5.484B** to accommodate the use of fixed-satellite service (FSS) networks by Control and Non-Payload Communications of Unmanned Aircraft Systems

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*Background/reason:*

WRC-15 adopted Resolution **155 (WRC-15)** for earth stations to support the control and non-payload communications of unmanned aircraft systems (UAS) which operate with geostationary-satellite networks in the frequency bands for which footnote RR No. **5.484B** applies.

Resolution **155 (WRC-15)** includes in its resolves specific issues to be taken into account for communication between any earth station on-board an unmanned aircraft and a geostationary-satellite network of the fixed-satellite service. As the content of required international aeronautical standards and recommended practices (SARPs) was not yet underway, WRC-15 resolved to invite WRC-23 to consider the results of those studies with a view to reviewing and, if necessary, revising Resolution **155**, and take necessary actions, as appropriate.

Conclusion of this matter provides the basis for the Director of the Radiocommunication Bureau to decide on the processing of respective satellite network filings through *instructs the Director of the Radiocommunication Bureau 4* of Resolution **155 (WRC-15)**.

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*Radiocommunication services concerned:*

Mobile, Fixed, Mobile-Satellite, Radionavigation, Broadcasting, Radio Astronomy, Broadcasting-Satellite, and Fixed-Satellite

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*Indication of possible difficulties:* None Foreseen

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*Previous/ongoing studies on the issue:* Studies undertaken in preparation of WRC-15 AI 1.5 and Studies continued in support of the implementation of Resolution **155 (WRC-15)** undertaken in ITU-R WP 5B after WRC-15.

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*Studies to be carried out by:* ITU-R WP5B

*with the participation of:*

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*ITU-R Study Groups concerned:* ITU-R SG5 (WP5A, WP5C),SG4 (WP4A, WP4C), SG6 (WP6A), SG7 (WP7D)

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*ITU resource implications, including financial implications (refer to CV126):* minimal

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***Common regional proposal:*** Yes/No

***Multicountry proposal:*** Yes/No

*Number of countries:*

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***Remarks***