

## 2015 WORLD RADIOCOMMUNICATION CONFERENCE

### DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

**TITLE:** Earth stations on aircraft operating in the FSS in the frequency band 12.75-13.25 GHz (Earth-to-space).

**AGENDA ITEM 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,*

**U.S. PROPOSAL:** The US proposes the adoption of an agenda item for the next WRC with the aim of developing regulatory means and associated conditions to allow operation of earth stations on aircraft in the FSS in the frequency band 12.75-13.25 GHz (Earth-to-space).

#### BACKGROUND

The frequency band 12.75-13.25 GHz is currently allocated on a primary basis to the fixed, mobile and fixed-satellite (Earth-to-space)<sup>1</sup> services, and on a secondary basis to the space research (deep space) (space-to-Earth) services.

Currently, satellite networks operating in this frequency band can provide services to earth stations while in motion only under No. 4.4, which requires the associated transmissions not to cause harmful interference to, and not to claim protection from harmful interference caused by, a station operating according to primary or secondary frequency allocations.

On the other hand, WRC-03 adopted regulatory provisions to allow operation of aircraft earth stations in the FSS in frequency band 14.0-14.5 GHz (Earth-to-space), where the same types of services with current allocation in the frequency band 12.75-13.25 GHz also operate.

Given the similarity of the services allocated in both frequency bands, it is proposed to study the viability of allowing the operation of earth stations on aircraft in the FSS in the 12.75-13.25 GHz (Earth-to-space) frequency band, with the aim of developing regulatory means and associated conditions for this type of application.

#### Proposals

MOD USA/10/1

### RESOLUTION 808 (WRC-~~12~~15)

#### ~~Preliminary a~~Agenda for the ~~2018-2019~~ World Radiocommunication Conference

The World Radiocommunication Conference (Geneva, ~~2012~~2015),

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<sup>1</sup> The use of the band 12.75-13.25 GHz (Earth-to-space) by geostationary-satellite systems in the fixed-satellite service is in accordance with the provisions of Appendix 30B according to No. 5.441.

**Reasons:** To modify the agenda for WRC-19 to add a new item.

**ADD** USA/10/2

**XX** To develop regulatory means and associated conditions to allow the operation of earth stations on aircraft in the FSS in the frequency band 12.75-13.25 GHz (Earth-to-space) in accordance with Resolution [USA/10/FSS 12.75-13.25 GHz] (WRC-15).

**Reasons:** To extend to the frequency band 12.75-13.25 GHz of the FSS the possibility to operate earth stations on aircraft as is currently the case in the 14.0-14.5 GHz frequency band.

**ADD** USA/10/3

## DRAFT RESOLUTION [USA/10/FSS 12.75-13.25 GHz] (WRC-15)

### **Possible operation of earth stations on aircraft in the FSS in the frequency band 12.75-13.25 GHz (Earth-to-space)**

The World Radiocommunication Conference (Geneva, 2015),

*considering*

- a) that the frequency band 12.75-13.25 GHz is currently allocated on a primary basis to the fixed, mobile and fixed-satellite (Earth-to-space) services, and on a secondary basis to the space research (deep space) (space-to-Earth) services;
- b) that fixed-satellite service (FSS) networks operating in this frequency band are also used for the provision of services to earth stations while in motion on a non-interference and non-protected basis, under No. **4.4**;
- c) that it is desirable to extend to the FSS frequency band 12.75-13.25 GHz the possibility to operate earth stations on aircraft as is currently the case for the 14.0-14.5 GHz FSS frequency band;
- d) that such operations should not jeopardize or cause harmful interference to currently allocated services or uses;
- e) that the same types of services currently allocated in the frequency band 12.75-13.25 GHz also operate in the 14.0-14.5 GHz frequency band, where the effective use of services has been possible simultaneously with transmissions from earth stations on aircraft operating in the FSS,

*recognizing*

- a) that FSS satellite networks operating in the 12.75-13.25 GHz frequency band can currently provide services to earth stations in motion only under No. **4.4**, which requires the associated transmissions not to cause harmful interference to, and not to claim protection from harmful interference caused by, a station operating according to primary or secondary frequency allocations;

b) that Nos. **5.504B** and **5.504C** establish conditions for operation of earth stations on aircraft in the FSS frequency band 14.0-14.5 GHz in accordance with No. **5.504A**;

c) that the use of the band 12.75-13.25 GHz (Earth-to-space) by geostationary-satellite systems in the fixed-satellite service is in accordance with the provisions of Appendix **30B** according to No. **5.441**,

*resolves to invite ITU-R*

1 to carry out studies toward the development of regulatory means and associated conditions that allow the operation of earth stations on aircraft in the FSS in the frequency band 12.75-13.25 GHz (Earth-to-space) taking into account the current and planned use of these bands by the existing services;

2 to complete studies in time for WRC-19,

*resolves to invite WRC-19*

to review the results of these studies with a view to adopt regulatory means and associated conditions that allow the operation of earth stations on aircraft in the FSS in the frequency band 12.75-13.25 GHz (Earth-to-space),

*invites administrations*

to participate actively in the studies by submitting contributions to ITU-R.

## ATTACHMENT

**PROPOSAL FOR AN ADDITIONAL AGENDA ITEM AIMING AT DEVELOPING REGULATORY MEANS AND ASSOCIATED CONDITIONS THAT ALLOW THE OPERATION OF EARTH STATIONS ON AIRCRAFT IN THE FSS IN THE FREQUENCY BAND 12.75-13.25 GHZ (EARTH-TO-SPACE)**

**Subject:** Proposal for an Agenda Item for WRC-19 aiming at developing regulatory means and associated conditions that allow the operation of earth stations on aircraft in the FSS in the frequency band 12.75-13.25 GHz (Earth-to-space)

**Origin:** United States of America

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**Proposal:** *To develop regulatory means and associated conditions that allow the operation of earth stations on aircraft in the FSS in the frequency band 12.75-13.25 GHz in accordance with Resolution [USA/10/FSS 12.75-13.25 GHz] (WRC-15).*

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**Background/reason:** According to the provisions of the Radio Regulations, FSS satellite networks operating in the 12.75-13.25 GHz frequency band can currently provide services to earth stations in motion only under No. 4.4. This provision requires the associated transmissions not to cause harmful interference to, and not to claim protection from harmful interference caused by, a station operating according to primary or secondary frequency allocations. On the other hand, WRC-03 adopted regulatory provisions that allow operation of earth stations on aircraft in the FSS in frequency band 14.0-14.5 GHz (Earth-to-space), where the same types of services with current allocation in the frequency band 12.75-13.25 GHz also operate. It may therefore be feasible to extend to the FSS frequency band 12.75-13.25 GHz (Earth-to-space) the possibility to operate earth stations on aircraft as is currently the case for the 14.0-14.5 GHz FSS frequency band, which would allow more capacity for the provision of such services with additional regulatory certainty.

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**Radiocommunication services concerned:** FSS, FS, MS and SRS (deep space)

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**Indication of possible difficulties:** None foreseen

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**Previous/ongoing studies on the issue:** Previous WRCs addressed similar issues in the 14.0-14.5 GHz band.

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<b>Studies to be carried out by:</b> SG4	<b>with the participation of:</b>
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**ITU-R Study Groups concerned:** SG4, SG5 and SG7

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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*