

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Recommendations Approved by World	)	<b>IB Docket No. 16-185</b>
Radiocommunication Conference Advisory	)	
Committee	)	

**COMMENTS OF ONEWEB ON DRAFT RECOMMENDATION  
FOR WRC AGENDA ITEM 1.5**

WorldVu Development Limited (dba “OneWeb”) submits these comments in response to the Public Notice issued by the International Bureau on October 3, 2018, in the above captioned proceeding (the “PN”).<sup>1</sup> The PN seeks comments on the World Radio Communications Conference Advisory Committee’s (“WAC”) draft recommendations in Attachment A to the PN and NTIA’s draft proposals in Attachment B to the PN. These issues will be considered at the 2019 World Radiocommunication Conference (“WRC-19”).

**Introduction**

Agenda Item 1.5 is “to consider the use of the frequency bands 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space) by earth stations in motion [(“ESIM”)] communicating with geostationary space stations in the fixed-satellite service and take appropriate action, in accordance with **Resolution 158 (WRC-15)**.” The WAC Industry Working Group charged with this agenda item did not reach a consensus but instead put forth three views.<sup>2</sup> OneWeb’s comments are supportive of the principles in View A<sup>3</sup> of these proposals, but with proposed

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<sup>1</sup> See *International Bureau Seeks Comment on Recommendations Approved by World Radio Communication Conference Advisory Committee*, Public Notice, IB Docket No. 16-185, DA 18-1017 (October 3, 2018) (“PN”).

<sup>2</sup> See *id.*, Attachment A at p. 133 (presenting the three views in Document WAC/068).

<sup>3</sup> See *id.* at p.p. 134-147 (View A).

modifications on the frequency ranges. OneWeb disagrees with the first principle provided by the proponents of View B.<sup>4</sup>

## Background

As emphasized by the proponents of View A, “growing demand for broadband communications to vessels, land vehicles, and aircraft has resulted in increased use of FSS for mobility applications.”<sup>5</sup> This is true whether the FSS system is GSO or NGSO. Since NGSO FSS systems share spectrum with GSO FSS systems, effective regulatory provisions must protect NGSO FSS networks from the possibility of interference caused by the operation of ESIMs communicating with GSO FSS space stations.

## Discussion

The proposals put forward in View A largely accomplish the required protection of NGSO systems and, consequently, OneWeb agrees with the three main elements of View A, namely:

- 1) a new footnote **ADD 5.A15**,
- 2) the associated **Draft New Resolution [A15]**, and
- 3) a new entry in **Appendix 4** of the Radio Regulations.

OneWeb proposes to expand the frequency range from 27.5-28.6 GHz to 27.5-29.1 GHz in *resolves* 1.1.6 for the protection of NGSO FSS systems. This creates consistency with US footnote NG165, which also suppressed the need for NGSO FSS to protect GSO FSS links in the 18.8-19.3 GHz band. Likewise, OneWeb proposes to expand the frequency range from 17.8-18.6 GHz to 17.8-19.3 GHz in *resolves* 1.1.7. Consequently, all occurrences of the frequency range 27.5-28.6 GHz in Annex 1 to **DRAFT NEW RESOLUTION [A15] (WRC-19)** should be replaced with the frequency range 27.5-29.1 GHz.

With regard to View B, OneWeb has no comment with respect to the protection requirements of the terrestrial services from ESIM transmissions on GSO networks. However, OneWeb disagrees with the first principle expressed by its proponents and reproduced here:

- 3) The benefits of a tuning range approach. Similar to the position the above-signed took with WRC-19 agenda item 1.13 for IMT, this proposal recognizes the benefits of a tuning range approach for ESIMS (when 5G is the victim service). We continue to believe the United States should propose a tuning range approach and that both agenda items 1.13 and 1.5 should be treated in the same manner. If the US decides to not support a tuning range approach for agenda item 1.13 (e.g. 37-43.5 GHz), then we would request that a similar approach be taken with

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<sup>4</sup> See *id.* at p.p. 148-158 (View B).

<sup>5</sup> *Id.* at p. 135.

agenda item 1.5 (i.e. segment the band and only propose ESIM operation in the upper part of the 28 GHz band consistent with US rules).”<sup>6</sup>

Since the entire 27.5-30 GHz band is allocated to the FSS (and to the Mobile service), and that the entire band is deployed and used on many FSS satellites, this does not constitute a “tuning range” as described by the proponents under Agenda Item 1.13. The main difference is that under this Agenda Item 1.6, **Resolution 158** (WRC-15) rightfully treats the band 27.5-9.5 GHz as one contiguous band, allocated in all ITU-R Regions to the FSS, whereas for Agenda Item 1.13, the various portions of the 37-43.5 GHz frequency range are not allocated in all three Regions to the Mobile Service.

Furthermore, the proponents of View B support the “tuning range” concept as a regulatory instrument, which is not consistent with the agenda item and its accompanying **Resolution 238** (WRC-15), which state, inter alia:

*Considering*

j) that harmonized worldwide bands and harmonized frequency arrangements for IMT are highly desirable in order to achieve global roaming and the benefits of economies of scale;

the sharing situation regarding applications of services to which the frequency band is already allocated, and may require additional regulatory actions;

l) the need to protect existing services and to allow for their continued development when considering frequency bands for possible additional allocations to any service,

and

*recognizing*

a) that there is a lead time between the allocation of frequency bands by world radiocommunication conferences and the deployment of systems in those bands, and that timely availability of wide and contiguous blocks of spectrum is therefore important to support the development of IMT;

b) that frequency bands allocated to passive services on an exclusive basis are not suitable for an allocation to the mobile service;

c) that any identification of frequency bands for IMT should take into account the use of the bands by other services and the evolving needs of these services;

d) that there should be no additional regulatory or technical constraints imposed to services to which the band is currently allocated on a primary basis,

Therefore, there is no need to discuss the concept of “tuning ranges” in the context of Agenda Item 1.5.

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<sup>6</sup> See *id.* at p. 149.

## **Conclusion**

OneWeb endorses the proposals in View A to add a footnote to Article 5 with an associated Draft New Resolution [A15] that extends the bands to include those covered by US Footnote NG165 and replaces in Annex 1 all occurrences of the frequency range 27.5-28.6 GHz with the frequency range 27.5-29.1 GHz.

OneWeb does not agree with the supporters of View B that the bands under consideration in Agenda Item 1.6 constitute a “tuning range” and does not support the implied connection to Agenda Item 1.13.

Respectfully submitted,

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