

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
Universal Service Reform – Mobility Fund	)	WT Docket No. 10-208

**PETITION FOR LIMITED WAIVER  
OF SPRINT CORPORATION**

Sprint Corporation (“Sprint”) hereby respectfully requests waiver of a reporting requirement associated with the submission of coverage maps used to determine Mobility Fund Phase II (“MF II”) support eligibility. Sprint has already submitted coverage maps that properly reflect the parameters mandated by the Commission, including clutter loss. Because of the nature the propagation model used, however, Sprint is unable to separately populate a clutter loss table. The software used in Sprint’s ordinary course of business does not have this capability and Sprint does not have an alternative means of generating a clutter loss table. Accordingly, Sprint hereby requests a waiver of the clutter loss table reporting requirement.

In the *MF II Challenge Process Order*, the Commission specified certain input parameters carriers were to use to generate their 4G LTE propagation maps, and the Bureaus subsequently released filing instructions which included, among other things, a table to report the loss value associated with each clutter factor category used to generate carrier coverage maps.<sup>1</sup> As required by the *Order*, Sprint submitted propagation maps

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<sup>1</sup> *Connect America Fund, Universal Service Reform – Mobility Fund, Order on Reconsideration and Second Report and Order* released August 4, 2017 (FCC 17-102)

using the specified parameters and Sprint's estimated coverage appropriately reflects clutter loss. However, because the software used to predict coverage builds clutter loss into each site's tuned propagation model, we are unable to provide a separate clutter table.

### **1. Propagation Model Used by Sprint**

Sprint uses Forsk's Atoll modeling software, and Orange Labs' Crosswave tuned model, to predict coverage. This model is based on the market, frequency, morphology, and height of the antennas above clutter, and is used both in the normal course of business and to generate the coverage maps mandated by the Commission for purposes of determining areas presumptively eligible for MF II support. This model "bakes in" the following 16 clutter classes to the propagation estimates:

- Airport
- Open
- Rural
- Commercial Industrial
- Residential with Trees
- Residential with Few Trees
- Core Urban
- High Density Urban
- Urban
- Forested Dense Vegetation
- Grassland Agriculture
- Inland Water
- Marsh Wetlands
- Open in Urban
- Transportation
- Seawater

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(*"MF II Challenge Process Order"*), para. 39. The clutter loss reporting instructions were set forth in a Public Notice released on September 22, 2017 (DA 17-926).

The model does not generate its own clutter data; instead, Sprint uses a separate clutter geodata file from Infovista. The Infovista data is based on Sentinel satellite imagery sized to 30m bins nationwide.

There is no dispute that the model and software used by Sprint properly reflects the input parameters specified in the *MF II Challenge Process Order*, and that the model does incorporate propagation loss for each clutter type. However, the Crosswave model uses proprietary algorithms to estimate these propagation losses, and the clutter losses are built into each site's tuned propagation model when a coverage analysis is made (clutter values are unique to each site/market). Thus, Sprint is unable to extract the data needed to populate the simplified clutter table the Commission is requesting.

## **2. A Limited Waiver of the Clutter Table Report Requirement is Warranted.**

The FCC has authority to waive its rules if there is "good cause" to do so.<sup>2</sup> The Commission "may exercise its discretion to waive a rule where particular facts would make strict compliance inconsistent with the public interest."<sup>3</sup> Where special circumstances warrant a deviation from the general rule, and the deviation is in the public interest, the Commission can and should waive its rules.

Special circumstances exist here which warrant grant of the instant request for limited waiver. The Commission stated in the *MF II Challenge Process Order* that carriers submitting MF II coverage maps were to use the "models and parameters used in their normal course of business."<sup>4</sup> As explained above, the model used by Sprint to

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<sup>2</sup> 47 C.F.R. § 1.3.

<sup>3</sup> *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990), citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C.Cir.1969).

<sup>4</sup> *MF II Challenge Process Order*, para. 39.

generate the MF II coverage map is the same model used for normal network planning purposes, and this model does not allow the extraction of clutter loss data in the form requested by the Commission for MF II purposes. Given the Commission's apparent intent here to avoid imposing an unnecessary burden on carriers (and such a burden would indeed be imposed on Sprint if it were required to somehow populate the clutter loss table), a waiver of the reporting requirement is warranted.

Moreover, grant of the requested limited waiver will not adversely affect the public interest. As described above, Sprint's 4G LTE coverage maps do appropriately reflect loss for each of the clutter categories. Sprint's coverage maps can and presumably have been seamlessly integrated into the Commission's industry-wide analysis of areas that are unserved by 4G LTE. Therefore, the Commission's goal of identifying areas eligible for MF II support is fully satisfied, and no harm to the public interest arises from grant of the requested waiver of the requirement that clutter loss data be filed in a separate table.

Respectfully submitted,

**SPRINT CORPORATION**

*/s/ Charles W. McKee*

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