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Via Electronic Filing

June 8, 2016

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: **Notice of Ex Parte Communication: In the Matter of Use of Spectrum Bands Above 24 GHz For Mobile Radio Services Notice of Proposed Rulemaking; GN Docket No. 14-177**

Dear Ms. Dortch:

On May 19, 2016, AT&T and EchoStar Satellite Operating Corporation, Hughes Network Systems, LLC and Alta Wireless, Inc. (collectively “EchoStar”) submitted proposed guidelines under which new Upper Microwave Flexible Use (“UMFU”) licensees would accommodate deployment of geostationary (GSO), individually-licensed Fixed-Satellite Service (“FSS”) earth stations in the 28 GHz band¹. The guidelines included, among other items, two tiers of safe harbor guidelines; one, for those cases where the GSO FSS earth station applicant and UMFU licensee engaged in, but could not successfully complete, a good faith coordination agreement; and a second tier for those cases where an individual GSO FSS earth station could be deployed without engaging in coordination.

The two-tiered approach was designed to incentivize the parties to negotiate a successful coordination by employing different population density level thresholds for each tier. AT&T and EchoStar were unable to agree on the specific population density thresholds and have chosen to submit their respective proposals separately. AT&T’s submission follows:

AT&T notes that 5G deployment will be significantly different than previous network deployments; mmWave frequencies, small cells with self-backhauling, and SDN/NFV technologies will provide a denser level of deployment than has ever been used in mobile broadband before. As a result, we believe the use cases for mobile broadband will extend beyond today’s typical uses and connectivity will be required in places that were not covered in the past. In order to maximize the utility and flexibility of mmWave 5G networks, AT&T is recommending the following thresholds for the Safe Harbor provisions in the guidelines:

- **Tier 1 Safe Harbor**

For those cases where the GSO FSS earth station applicant and UMFU licensee engaged in, but could not successfully complete, a good faith coordination agreement, an individual GSO FSS earth station with a maximum EIRP density toward the horizon of 12.2dBm/MHz may be deployed provided that the population density (based on the 2012 Census Tracts) is below 150 persons per square mile and there is no current UMFU deployment within that area. No more than 2 FSS uplink locations per individual satellite network shall be deployed under this Tier 1 Safe Harbor approach in a given UMFU license area. Notice shall be provided to the UMFU licensee of the FSS earth station

¹ See Letter from Stacey Black and Jennifer Manner to Marlene H. Dortch, GN Docket No. 14-177, *et al.* (May 19, 2016).



deployment, and the FSS earth station shall be identified as a Tier 1 Safe Harbor deployment in the FCC application

- **Tier 2 Safe Harbor**

For those cases where an individual GSO FSS earth station with a maximum EIRP density toward the horizon of 12.2dBm/MHz is to be deployed without engaging in good faith coordination, the population density (based on the 2012 Census Tracts) within the area around the earth station must be below 100 persons per square mile. No more than 2 FSS earth stations per individual satellite network shall be deployed under this Tier 2 Safe Harbor approach in a given UMFU license area. Notice shall be provided to the UMFU licensee of the FSS earth station deployment, and the FSS earth station shall be identified as a Tier 2 Safe Harbor deployment in the FCC application.

AT&T believes these thresholds will allow UMFU licensees who have purchased spectrum licenses to preserve their opportunities to serve new markets and use cases while providing FSS operators a location in which they can deploy individually-licensed earth stations. AT&T urges the Commission to adopt these proposed thresholds.

Pursuant to the Commission's rules, this notice is being filed in the above-referenced docket for inclusion in the public record. Please contact me should you have any questions.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Stacey Black", written over a light-colored rectangular background.

Stacey Black
Assistant Vice President
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AT&T Services, Inc.