

November 8, 2017

**BY ELECTRONIC FILING**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 20554

**Re:   *Spectrum Bands Above 24 GHz et. al.*, GN Docket No. 14-177, IB Docket No. 15-256, WT Docket No. 10-112, and IB Docket No. 97-95**

Dear Ms. Dortch:

On November 6, 2017, EchoStar Satellite Operating Corporation and Hughes Network Systems, LLC, (collectively “EchoStar”), Inmarsat, Inc. (“Inmarsat”), SES Americom, Inc. (“SES”), O3b Limited (“O3b”), Intelsat Corporation (“Intelsat”), Telesat Canada (“Telesat”), and The Boeing Company (“Boeing”) (jointly, the “Satellite Broadband Operators”) met with Erin McGrath, Legal Advisor to Commissioner O’Rielly, regarding the pending petitions for reconsideration and the pending further notice of proposed rulemaking in the above referenced proceeding.

EchoStar was represented by Jennifer A. Manner. Inmarsat was represented by Ethan Lucarelli. SES was represented by Philippe Secher. O3b was represented by William Lewis. Intelsat was represented by Alexander Gerdenitsch. Telesat was represented by Joe Godles of Goldberg, Godles, Wiener, and Wright. Boeing was represented by Bruce Olcott of Jones Day.

In the meeting, the Satellite Broadband Companies’ representatives discussed the attached talking points, which were provided to Ms. McGrath, setting out their views on the draft Order released on October 26, 2017. In particular, they discussed three issues that should be revisited in order to facilitate intensive and equitable use of high-band spectrum by 5G platforms in the Fixed-Satellites Service (“FSS”) and Upper Microwave Flexible Use Service (“UMFUS”), and thereby ensure that both FSS and UMFUS operators will have sufficient access to the scarce spectrum resources they need in order to meet the growing demands of U.S. broadband consumers.

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

Respectfully submitted,

/s/ M. Ethan Lucarelli

M. Ethan Lucarelli

Director, Regulatory and Public Policy

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cc: Erin McGrath

Attachment



## THE FCC MUST ADOPT RULES FOR THE MILLIMETER WAVE BANDS THAT ENABLE EFFICIENT AND FLEXIBLE USE BY BOTH SATELLITE AND TERRESTRIAL WIRELESS SYSTEMS

**NOVEMBER 2017**

- The Satellite Broadband Operators have answered the call for broadband satellite services by deploying Ka-band space stations that provide coverage throughout the United States with speeds available at 25/3 Mbps and above. Today there are approximately 2 million (and growing) broadband customers across North America who enjoy these services.
- Today Ka-band satellite systems are actively supporting disaster recovery in Puerto Rico including enabling LTE wireless services, as well supporting FEMA, hospitals, retailers and others.
- To keep up with consumer demand, new systems have been proposed and are under construction, not just in the Ka-band, but also in the bands above 30 GHz including the 40 GHz and 50 GHz bands.
- These new satellite systems will serve an important part of the 5G infrastructure, giving users access to a competitive platform that provides highly reliable broadband services, even in the most rural and underdeveloped areas of the U.S. – exactly what we need to help close the digital divide.
- To successfully deploy these systems, satellite operators need operational flexibility and certainty. The draft Order provides a solid basis for use of the upper millimeter wave bands for satellite by maintaining the 48.2-50.2 GHz and 40-42 GHz as core satellite bands and providing shared access through a three tiered approach to earth stations in the 27.5-28.35 GHz, 37.5-40.0 GHz, and 47.2-48.2 GHz bands. There are however a couple of areas that should be revisited.

### **GRANDFATHERED EARTH STATIONS**

- In the *Spectrum Frontiers Order*, the FCC recognized the importance of grandfathering existing earth stations in the 28 GHz band in providing “valuable services to customers.”
  - The draft order counts the coverage of these grandfathered earth stations toward the population calculations despite the fact that these earth stations were deployed before the UMFUS rules were developed.
  - This will harm the ability of new systems to deploy earth stations in some counties that make the most technical sense, potentially raising costs and decreasing operational efficiencies.

- Accordingly, the FCC should exclude grandfathered 28 GHz band earth stations from counting toward the population limitations.

### **TRANSIENT POPULATION LIMITS**

- In the *Spectrum Frontiers Order*, the FCC adopted vague transient population limits for individually licensed earth stations.
  - Although the draft Order clarifies its rules for roads, it fails to do so for other limits including event venues and railroads.
  - This lack of certainty will negatively impact satellite operations because an earth station could be deployed in an area the FCC subsequently finds to violate its transient population limits.
  - Accordingly, the FCC should narrowly define each transient population limit, as we proposed in our Reply Comments (see attached annex).

### **NUMERICAL LIMITS ON EARTH STATIONS**

- The cap of three individually licensed earth stations per county is a counterproductive regulatory burden because the population limits adequately and more appropriately protect UMFUS licensees.
  - The numeric limits severely restrict the number of earth stations that can be located in rural counties, forcing more earth stations into populated communities.
  - Accordingly, the FCC should remove this restriction from the 28 GHz band and not apply it to the 38 GHz or 47 GHz bands.
- The redundant caps of three earth stations per county and 15 earth stations per Partial Economic Area (PEA) will further increase the need to place additional earth stations in less rural PEAs.
  - PEAs in more rural western states generally have fewer counties (sometimes comprised of only one county), preventing operators from locating many earth stations in those very rural PEAs.
  - The Commission should therefore eliminate all of the numerical limits, or at least one of the duplicate layers of restrictions, such as retaining only the three earth station per county limit.

## **ANNEX**

### **PROPOSED DEFINITIONS FOR TRANSIENT POPULATION LIMITS**

- “Major event venue” should be defined as one with a capacity of 10,000 or more. This would cover all NFL/MLB/NBA/NHL venues, and major college venues as well.
- “Arterial street, interstate or U.S. highway” should include only principal arterials as defined by the Department of Transportation’s classification system. [DONE]
- “Passenger railroad” should be defined as railroad track operated by Amtrak, which covers over 21,000 miles of track.
- “Cruise ship port” should apply to the fifteen largest ports in the United States, which handle almost 90% of all cruise ship passenger departures in North America.
- In addition, “urban mass transit route” should be eliminated as duplicative, as such routes typically follow principal arterial roads, share track with Amtrak, or serve highly populated areas.