

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Expanding Flexible Use in Mid-Band)	GN Docket No. 17-183
Spectrum Between 3.7 and 24 GHz)	

To: The Commission

**REPLY COMMENTS OF
EUTELSAT S.A.**

Eutelsat S.A. (“Eutelsat”) herein replies to certain of the comments that were filed in response to the Commission’s Notice of Inquiry (“NOI”) on expanding flexibility for wireless systems in frequency bands between 3.7 and 24 GHz.¹ Eutelsat is one of the largest satellite operators in the world, maintaining 39 satellites positioned to serve users in 150 countries in Europe, Africa, Asia and the Americas. Eutelsat, through its subsidiaries, Satelites Mexicanos, S.A. de C.V. (d/b/a Eutelsat Americas) and ES 172 LLC, operates five satellites that provide services in the United States,² four of which operate in the C-band frequencies of 3.7-4.2 GHz and 5.925-6.425 GHz.

¹ See Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz, FCC 17-104, *Notice of Inquiry*, GN Docket No. 17-183 (Aug. 3, 2017) (“NOI”).

² Eutelsat Americas operates four satellites through Commission grants of U.S. market access, including Eutelsat 113 West A (call sign S2695), Eutelsat 115 West B (call sign S2938), Eutelsat 117 West A (call sign S2873) and Eutelsat 117 West B (call sign S2926). A fifth satellite, Eutelsat 172A, operates pursuant to a license issued by the Commission to a Eutelsat subsidiary, ES 172 LLC (call sign S2610) and is scheduled to be replaced by a new satellite, Eutelsat 172B, which will also operate pursuant to a Commission authorization (call sign S3021).

Major business and U.S. government agencies use Eutelsat’s C-band satellites to support critical communications services in the United States that often could not be replicated using satellites operating in other frequency bands, or using non-satellite communications technologies. For this reason, Eutelsat and its U.S. customers have a significant interest in the Commission’s inquiry regarding the potential introduction of new or modified communications services in the 3.7-4.2 GHz and 5.925-6.425 GHz bands.³ Eutelsat also has significant questions and in some cases concerns regarding a proposal submitted by Intelsat and Intel (“*Intelsat/Intel Proposal*”) to permit certain operators of C-band satellite systems to negotiate voluntary commercial arrangements with wireless interests addressing the potential relocation or retuning of C-band earth stations in the United States.⁴

I. EUTELSAT USES C-BAND SATELLITE SERVICES TO SUPPORT CRITICAL COMMUNICATIONS NEEDS OF CUSTOMERS IN THE UNITED STATES

Eutelsat’s customers in the United States use C-band satellite services to support a wide range of important communications functions. Many of the major U.S. oil companies use Eutelsat’s C-band satellite services to transmit data and operational information between facilities in the United States and oil platforms and ships in the Gulf of Mexico. The use of fixed and transportable C-band satellite earth stations helps to ensure that critical communications regarding worker safety and operational continuity are maintained during heavy rain and other adverse weather conditions.

³ See *NOI*, ¶¶ 18-19 (addressing 3.7-4.2 GHz band); ¶¶ 26-29 (addressing 5.925-6.425 GHz band).

⁴ See Joint Comments of Intelsat License LLC and Intel Corporation, GN Docket No. 17-183 (Oct. 2, 2017) (“*Intelsat/Intel Proposal*”).

C-band satellite capacity on Eutelsat's 113 West A satellite is also used to distribute ethnic video programming services to cable television head end facilities in the United States, contributing to the diversity of programming that is available to U.S. consumers. C-band satellite capacity provides optimal characteristics for the distribution of digital video programming, allowing coverage of large geographic areas, while ensuring very high reliability and availability.

Eutelsat is also using its C-band satellite capacity to support internet access services in very remote areas of the United States. For example, Eutelsat is supporting Alaska Communications Systems Group, Inc., which is the largest incumbent local exchange carrier in Alaska, by means of the Eutelsat 115 West B satellite to provide essential broadband and voice-over-Internet Protocol ("VoIP") services to enterprise, business, educational, health care, and residential customers throughout Alaska.⁵ C-band satellite capacity is essential to provide reliable and uninterrupted broadband communications to remote communities where traditional communication services are generally unavailable. Eutelsat's C-band satellite services can be used to support similar solutions in other rural and remote areas of the United States.

The U.S. government uses C-band satellite capacity on Eutelsat's 172A satellite to support critical communications between Hawaii and U.S. facilities in Asia. In addition, Eutelsat's 117 West B satellite is being used to support the FAA's Wide Area Augmentation System ("WAAS"), which greatly increases the accuracy of the Global Position System, permitting its use by aircraft for navigation and instrument-guided landing and approach. The

⁵ See Alaska Communications Internet, LLC, FCC File No. SES-STA-20170925-01054 (granted Sept 28, 2017).

WAAS payload on Eutelsat 117 West B uses the upper portion of the 3.7-4.2 GHz band for telemetry downlinks with feeder link earth stations in the United States.⁶

Although Eutelsat's customers in the United States use C-band satellite services to support a wide variety of applications, they all share common requirements. C-band satellites provide highly reliable and ubiquitous communications links that are equally available over very large geographic areas, including the most remote portions of the United States. C-band satellite services remain available during severe weather and are rapidly recoverable following disasters. These important capabilities often cannot be achieved using terrestrial communications services, or using satellite systems operating in other spectrum bands. Therefore, Eutelsat urges the Commission to ensure that any new or modified services that are introduced in the 3.7-4.2 GHz and 5.925-6.425 GHz bands are regulated to ensure that they do not cause harmful interference to important satellite communications services operating in these frequencies.

II. THE INTELSAT/INTEL PROPOSAL TO CLEAR SATELLITE SERVICES FROM PORTIONS OF THE C-BAND REQUIRES CLARIFICATION

Eutelsat is studying the *Intelsat/Intel Proposal*, including any potential benefits that it may provide with respect to the efficient use of C-band spectrum resources in the United States. Eutelsat has concerns about several aspects of the proposal, which lacks detail regarding the manner in which the Commission would permit one or more C-band satellite operators to voluntarily negotiate with wireless interests regarding the potential clearing of spectrum in portions of the 3.7-4.2 GHz and 5.925-6.425 GHz bands.

The *Intelsat/Intel Proposal* suggests that negotiations with terrestrial mobile interests on band clearing would be conducted solely by "primarily affected FSS satellite operators," which

⁶ See, e.g., IBFS File Nos. SES-MFS-20140630-00546 and SES-MFS-20140630-00548.

the proposal defines as “those with U.S.-licensed satellites serving earth stations within the identified geographic area and with coverage of the entire continental United States (“CONUS”).”⁷ Eutelsat operates a U.S.-licensed satellite with C-band coverage, Eutelsat 172A, but it provides partial CONUS coverage. Other Eutelsat satellites do provide full C-band CONUS coverage, but are not U.S. licensed. Thus, Eutelsat may potentially be excluded from the proposed definition of “primarily affected FSS satellite operators.”

Of even greater concern, the *Intelsat/Intel Proposal* does not appear to envision a seat at the table for Eutelsat as a representative of its key U.S. customers. As the *Intelsat/Intel Proposal* acknowledges, an “important” consideration is ensuring that any C-band spectrum clearing “does not come at the expense of existing FSS users who rely on C-band downlink spectrum access.”⁸

Despite this acknowledgement, the *Intelsat/Intel Proposal* suggests that numerous important roles in this process should be reserved for “primarily affected FSS satellite operators,” including identifying the geographic locations where clearing would be attempted,⁹ operating a “centralized clearance mechanism” that would relocate C-band earth stations,¹⁰ and entering into “market-driven private agreements” with one or more terrestrial mobile interests on compensation for their use of cleared spectrum.¹¹ In each case, the interests of the most important stakeholders – *i.e.*, the U.S. entities that rely on C-band satellite services to support critical communications – seem to be excluded from the decision making process.

⁷ *Intelsat/Intel Proposal* at 2 and n.3.

⁸ *Id.* at 14.

⁹ *Id.* at 7.

¹⁰ *Id.* at 6.

¹¹ *Id.* at 8.

The *Intelsat/Intel Proposal* acknowledges the “significant cost, including lost opportunities” that would result from clearing all or a portion of C-band satellite spectrum, but appears to suggest that these losses would be experienced solely by “incumbent satellite operators in the identified frequencies and geographic areas.”¹² Once again, this seems to ignore the other important parties at interest – the U.S. entities that have invested in C-band satellite equipment in order to benefit from reliable and widely available C-band satellite services.

The *Intelsat/Intel Proposal* also makes no effort to define the “identified geographic area” where band clearing may be attempted. During informal presentations to the satellite industry, Intelsat has suggested that band clearing would be focused on major population centers. Some of those major population centers, including, for example, Miami, Tampa, New Orleans, Houston, San Diego, Honolulu, Seattle and Anchorage, may support hub facilities for critical C-band networks. Therefore, the issue of where to attempt band clearing must involve input from all users of C-band satellite services in the United States.

Most importantly, given the critical importance of many of the communications services that are supported by C-band satellite networks, it will be necessary to ensure that any voluntary process that is authorized by the Commission does not evolve into a coercive or compulsory process of band clearing. The Commission’s statutory obligation to manage spectrum resources in furtherance of the public interest necessitates that the Commission exercise its regulatory authority in a technically-neutral manner. Consistent with this, the Commission should permit C-band satellite operators – in consultation with their U.S. customers – to determine individually whether C-band satellite services continue to provide the most efficient and reliable

¹² *Id.* at 2.

communications service to support their needs, or whether the voluntary negotiation and acquisition of alternative communications approaches would be acceptable.

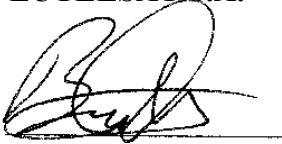
III. CONCLUSION

Eutelsat will continue to participate in this proceeding and will continue to study the issues raised by this inquiry in cooperation with its U.S. customers and with other operators of C-band satellite networks serving consumers in the United States. Eutelsat wants to ensure that, on behalf of its U.S. customers that depend on C-band satellites to support critical communications services, Eutelsat will have a role in any process that is adopted for the possible clearing of C-band spectrum. Eutelsat also seeks to ensure that it retains discretion to make voluntary decisions with its U.S. customers regarding whether to participate in band clearing, or whether to continue to use C-band satellites as a cost-effective, highly reliable, and often irreplaceable communications service.

Respectfully submitted,

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