

March 19, 2018

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Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W., Room TW-B204
Washington, D.C. 20554

**Re: *Ex Parte* Notification
 GN Docket No. 17-183
 RM-11791**

Dear Ms. Dortch:

The Broadband Access Coalition (“BAC”) is compelled to respond to the recent *ex parte* filings made by SES Americom, Inc. and Intelsat Corporation (collectively “Intelsat”) and Intel Corporation (“Intel”) regarding the joint proposal of Intelsat and Intel to, in essence, privately auction spectrum in the 3700 – 4200 MHz band (“C-band”) from Fixed-Satellite Service (“FSS”) providers to mobile services providers.¹

The BAC supports a win-win-win solution: (1) protecting incumbent FSS providers from harmful interference; (2) providing access to the 3700 – 3800 MHz band to mobile 5G providers to serve densely populated urban areas; and (3) providing access to frequency-coordinated spectrum across the 3800 – 4200 MHz band, and to the 3700 – 3800 MHz band outside densely populated urban areas, to enable point-to-multipoint (“P2MP”) broadband wireless providers to provide badly needed high-throughput wireless broadband to unserved and underserved customers, particularly in rural areas. The Commission can achieve this win-win-win solution by combining the Intelsat/Intel and BAC proposals. These proposals are not inconsistent with one another.

The BAC, however, reiterates its strong opposition to the Intelsat/Intel private auction concept as a stand-alone solution.² Standing by itself, the Intelsat/Intel concept will do nothing to provide broadband service to unserved and underserved communities, and therefore, it fails to address Chairman Pai’s top priority: closing the digital divide.³

¹ SES and Intelsat Notice of *Ex Parte* Presentations, GN Docket No. 17-183, Feb. 9, 2018 and Intel *Ex Parte* Communication, GN Docket No. 17-183, Feb. 22, 2018.

² See Reply Comments of the Broadband Access Coalition, GN Docket No. 17-183, filed Nov. 15, 2017, at 9 – 11. See also Reply Comments of T-Mobile USA, Inc., GN Docket No. 17-183, filed Nov. 15, 2017, at 13 – 17.

³ See, e.g., Remarks of Chairman Ajit Pai at the Satellite Industry Association’s 21st Annual Leadership Dinner, Washington, DC, March 12, 2018, at 2.

More specifically, the BAC responds to several assertions in Intel's *ex parte* letter. First, Intel asserts that:

Two components of the Intelsat/Intel flexibility proposal are key to its success. First, the eligible FSS satellite operators must be provided flexibility to enable terrestrial mobile use where and when they determine it is appropriate. *The flexibility granted to the eligible FSS operators must cover the entire 3.7 to 4.2 GHz band* to ensure that market forces will determine the use of the spectrum, up to the full 500 MHz. (emphasis added)

What Intel appears to be proposing is that FSS satellite operators be given *carte blanche* to determine (1) how much spectrum they can make available; (2) what frequencies they can make available; and (3) how much to charge for this spectrum. This is absurd.

At the outset, it must be emphasized that FSS providers do not own this spectrum, nor do they hold exclusive use licenses purchased at auction for specific portions of the spectrum and/or specific markets. Instead, Intelsat, SES and other satellite operators are authorized to transmit from their satellites over the entire 500 megahertz, but rights to interference protection for receive operations extend specifically to the registered earth stations that actually use widely varying amounts of spectrum in the band (*e.g.*, more than 900 Associated Press earth stations use only 23 megahertz).

Further, no one knows how much spectrum FSS operators are actually using or where they are using it because the IBFS database is inaccurate and incomplete.⁴ Even if there is some sort of compensation for FSS operators to clear a portion of the band, the FSS providers should not collect a dime for spectrum they are not using.

Intel suggests, in essence, that the FSS industry should be able to block frequency-coordinated, flexible use access to the entire 3700 - 4200 MHz band – including wide swaths of the country where most or all of the 500 megahertz C-band is unused by FSS providers -- for the convenience of the satellite industry. Presumably the rationale is that FSS operators might want to clear spectrum in any portion of the band or that FSS operators may need to access transponders operating on frequencies that cannot be cleared for exclusive mobile use.

Although compressing FSS operations into a portion of the band may have benefits, the assertion that the FSS industry should decide how much of the band can or cannot be shared is an incredible overreach that is wholly contrary to the public interest in maximizing the use of this valuable spectrum band and rapidly deploying broadband to unserved and underserved areas. BAC agrees with T-Mobile's recent observation that "the current proposal of Intel and Intelsat . . . would provide no assurance that the spectrum would ever be used for terrestrial broadband networks."⁵

⁴ See *e.g.* Broadband Access Coalition Petition for Rulemaking, RM-11791, filed June 21, 2017 at 21 – 25, and Broadband Access Coalition *Ex Parte* Letter, Proposal to Update the International Bureau Filing System, Docket No. 17-183 and RM-11791, filed Jan. 24, 2018.

⁵ *Ex Parte* Communication of T-Mobile USA, Inc., GN Docket No. 17-183, filed Jan. 11, 2018, at 2.

The BAC recognizes that relocating FSS operations into the upper 400 megahertz of the band may alter the opportunities available for sharing, but the BAC proposal readily accommodates such changes by requiring terrestrial users to deploy frequency agile equipment and move their operations to different, frequency-coordinated channels as needed. Despite Intel's attempts to make the two approaches to expanded use of the band seem incompatible, the reality is that BAC's proposal is not at all inconsistent with the Intelsat/SES approach. And this is true regardless of whether the clearing of FSS incumbents off a portion of the band is effectuated through "private market deals" or an FCC reallocation plan.

Mobile operators have expressed interest in gaining access to the 3700 – 3800 MHz portion of the C-band for use in densely populated areas, particularly in the largest urban markets. Thus, the Commission should be looking for an effective means to clear that portion of the C-band for nationwide use in such densely populated urban areas.

Intel's assertion that the satellite industry needs the flexibility to clear any portion of the entire 3700 - 4200 MHz band is simply a ploy, on behalf of the FSS operators, to avoid disclosure of the frequencies that any given earth station is actually using, and thus, to avoid frequency-coordinated sharing of the entire 500 megahertz C-band. If the Commission wishes to proceed with a proposal to clear a portion of the band, whether by government mandate or by private auction, the Commission – not private entities -- should specify at the outset which portion of the band should be cleared. The remaining spectrum must be made available as soon as possible for frequency-coordinated sharing, as proposed in the BAC rulemaking petition.

The BAC reiterates that it proposes two forms of sharing. First, frequency-coordinated flexible use terrestrial providers would operate on and protect C-band downlink frequencies not being used by nearby satellite earth stations. Importantly, this kind of sharing does not involve co-channel sharing, except to the extent that Intelsat considers operations in any portion of the C-band, no matter how small, to be "co-channel" -- which would be an incredible overreach. Second, flexible use terrestrial providers would operate "co-channel" – but only on a frequency-coordinated basis beyond any exclusion zone required to protect C-band downlinks.

Intel asserts that:

[T]he current use by thousands of customers and the alternative possible means of accommodating them makes efficient clearing of this band complex. *** The alternative approaches put forward in the record would require more difficult FCC determinations as to what use exists, the relative value of competing uses of the band, and which means of accommodating existing users, if any, would be cost-effective. These top-down approaches are much more likely to result in delays.⁶

It does not appear that Intel is even addressing the BAC proposal for sharing the band with incumbent FSS users. *The BAC proposal does not require any accommodation by*

⁶ Intel *Ex Parte* Communication, GN Docket No. 17-183, Feb. 22, 2018, at ¶ 3.

incumbent FSS users. Those users would continue on a primary basis to access the same satellites and use the same spectrum as before. Instead, it is the entities seeking to use frequency-coordinated spectrum for flexible use, including point-to-multipoint (“P2MP”), who must accommodate the incumbent users. Registered FSS incumbents could move to different frequencies within the band as necessary, while retaining protection from interference. Even if an FSS operator provides only one hour of notice of a need to use different frequencies, that is something that fixed wireless operators can easily accommodate under a spectrum sharing regime.

The BAC understands that the Commission will need to ensure that the technical criteria for protecting incumbent FSS users are adequate, and put in place appropriate procedures to ensure compliance with these interference protection standards by flexible use providers, including P2MP providers. The BAC recognizes that Part 101 coordination will need to become more dynamic over time and able to accommodate registered earth stations that expand or change their frequency usage. This burden will be almost entirely on prospective P2MP entrants. And, of course, as an initial matter, the Commission will need to update the IBFS database to determine the scope of incumbent usage. The Commission will not, however, have to make determinations as to the relative value of competing uses of the band. In all events, the BAC rejects the notion that the FCC should leave it to a favored set of private parties to work out the specifics, and thereby avoid any policy decisions regarding band sharing simply because those decisions might require some hard work.

Finally, consistent with the Commission’s stated desire to promote “flexible use” in the band, if the Commission moves forward to make the 3700 – 3800 MHz band available to mobile operators in densely populated urban areas, the BAC urges the Commission to move in parallel to make the 3700 – 3800 MHz band available, on a frequency-coordinated basis, for non-exclusive, licensed flexible use in geographic areas outside densely populated areas. Assuming *arguendo* that the 3700 - 3800 MHz band is cleared, the BAC expects it would be used primarily in densely populated areas to provide additional broadband *capacity*. At the same time, the 3700 – 3800 MHz band must be made available on a non-exclusive, first-come, first-served, licensed basis in less densely populated areas to provide additional broadband *coverage*. Fixed wireless operators have the ability to coordinate the use of vacant spectrum on a localized basis and by sector, taking advantage of antenna directionality and other methods to avoid interference to earth stations. The Commission must not allow this 100 megahertz of spectrum to lie fallow in less densely populated areas. Instead, this spectrum must be put to use as soon as possible to serve unserved and underserved areas.

Please do not hesitate to contact Bob Koppel, counsel for Mimosa, or Steve Coran, counsel for WISPA, if you have any questions.

Respectfully submitted

Broadband Access Coalition

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