

November 15, 2019

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

Re: Expanding Flexible Use of the 3.7 to 4.2 GHz Band
GN Docket No. 18-122
Written *Ex Parte* Presentation

Dear Ms. Dortch,

Pursuant to Section 1.1206(b)(2) of the Commission's Rules and on behalf of PSSI Global Services, L.L.C. ("PSSI"), I am submitting a written *ex parte* presentation prepared by PSSI and directed to the Chairman and the other Commissioners.

The presentation addresses ongoing concerns of PSSI regarding developments in the C-Band rulemaking. These include, but are not limited to, PSSI's concerns about whether it will be possible to continue transportable services on a nationwide basis; the impact on Occasional Use -- which as presently provided depends on bandwidth across the full arc -- when as little as 200 MHz would remain for current use; the need for future 5G mobile carriers to register their facilities to permit continued frequency coordination in the C-Band; and the need for ongoing monitoring and enforcement of the Commission's technical rules in the C-Band, particularly during the transition phase for the C-Band.

Please direct any questions regarding this filing to me at stephen.diaz.gavin@rimonlaw.com or at 202-871-3772.

Respectfully submitted,



Stephen Díaz Gavin

cc: Chairman Ajit Pai
Commissioner Michael O'Rielly
Commissioner Brendan Carr
Commissioner Jessica Rosenworcel
Commissioner Geoffrey Starks
Julius Knapp
Jim Schlichting



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November 14, 2019

Dear Chairman Pai and FCC Commissioners,

Over the last year and a half, during in-person meetings and numerous written filings, PSSI Global Services, LLC (PSSI) has actively expressed its concern to the Commission about the inevitable transition of substantial C-band spectrum to the mobile wireless community for use in support of 5G operations. It is not an exaggeration to state that the changes proposed by parties to the C-Band rulemaking process pose an existential threat to companies like PSSI that make their living providing C-band transportable services for broadcast, cable, and enterprise customers.

As the FCC moves towards issuance of a Report and Order in this proceeding, we urge the Commission to ensure that the significant concerns of C-band transportable service providers such as PSSI, as outlined below, are addressed in a substantive manner.

C-band transportable service companies occupy a unique position in the full arc and full 3.7-4.2 GHz spectrum because they are licensed by the FCC to provide C-band transportable services from any location. Their licenses are not limited to a fixed latitude and longitude. C-band transportable services are essential to the production, transmission and dissemination of thousands of high-quality, live video programs and live special events every year, content that is worth hundreds of millions of dollars in commercial value for broadcasters, advertisers, and various ancillary entities in an industry that is a mainstay of the U.S. economy¹.

A continuing concern of PSSI is interference to operations from future 5G mobile service in the lower portion of today's C-Band. It has been proposed that many fixed venues could be registered nationwide for C-band protection from 5G mobile users,² Although such a solution is a start to protecting C-Band services in the transportable sector, we do not believe any such registration can fully protect the transportable services that originate from various unlimited locations across the country, where there is often little prior notice before a live event must be broadcast.

¹ The entire video production industry forms a huge portion of the U.S. economy. It is estimated that \$1.18 trillion of the annual U.S. Gross Domestic Product (GDP) originates in the local commercial broadcast radio and television industry. This translates to approximately 6% of the GDP of the United States. See "An Analysis of the Importance of Commercial Local Radio and Television Broadcasting to the United States Economy," Woods & Poole Economics, Inc, Washington, D.C., 2017, http://www.nab.org/documents/newsRoom/pdfs/2017_woods_poole.pdf. Thus, great care needs to be exercised in risking damage to such an important element of the U.S. economy.

² See CBA Ex Parte Proposal, filed Sept. 18, 2019.



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Despite the unsupported claims of some parties to the C-Band proceedings, C-Band remains the preferred and most reliable method of transport-over-satellite for video, audio, and data for a multitude of reasons. PSSI has expressed concern about transitioning greater than 100MHz of this spectrum from the very start, and now understands that as much as 300MHz may be repurposed for terrestrial mobile use. Such a decision will disproportionately impact the transportable satellite service providers – and the content providers that are their customers – all of whom depend upon the availability of occasional use (“OU”) bandwidth across the full arc. Without cleared and available C-Band spectrum, there will be an immediate and negative impact on the production, programming and broadcasting sectors who rely on PSSI’s services. It is not hyperbole to state that, without sufficient frequency available, the viability of transportable earth stations, and of OU as a viable solution for content providers, is in peril.

As the predominant transportable user of the C-Band spectrum, PSSI has always maintained that any changes to the long-standing and current full band, full arc policies will impair the reliable transmission of all live special events and will thereby threaten the livelihood of all similarly licensed spectrum users. In addition to the technical concerns about the protection of transportable antennas from 5G power nodes addressed in PSSI’s most recent ex parte filing (October 18, 2019), another major concern continues to be the loss of available C-band spectrum to provide occasional use (OU) services across the full arc nationwide. Without sufficient, available frequency bandwidth, there is serious concern about the future of transportable earth stations and OU as solutions for content providers. The future availability of OU spectrum should not be left to chance, nor to the sole discretion of the satellite carriers.

- In developing its final rules for the repurposed C-Band, the Commission should include a mandate that satellite carriers set aside a minimum amount of transponder capacity for OU.

In addition to capacity issues, PSSI is greatly concerned about the ongoing failure of other transmission service providers to respect the Commission’s rules regarding interference to licensed users, particularly in the context of reduced spectrum available for OU and C-Band operations. PSSI has abided by the Commission’s Rules and properly requests radio frequency interference (“RFI”) studies and abides by their results at every location it operates to ensure its services do not interfere with other entities. However, we continue to experience interference from other sources for which there seems to be no recourse or enforcement. These incidents impede our ability to provide even our current services, which is cause for great concern even before we contend with the potentially devastating interference issues expected in the transition to 5G mobile services in portions of the C-Band.



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In just the last few weeks alone, PSSI has experienced C-band reception interference in the following locations that threatened the ability to provide our services to our clients:

- Seattle, Washington - Husky Stadium 11/2/19 (Galaxy 3C, Transponders C4 and C22) - note possible proximity of golf carts and production-related RF cameras.
- Columbus, Ohio - Ohio Stadium 10/26/19 (Galaxy 3C, Transponder C21 @ 4120H and Galaxy 3C, Transponder C17 @ 4040H) - note proximity to air traffic telemetry services.
- Los Angeles, CA - LA Coliseum 11/2/19 (Galaxy 19, Transponder 01 (3720 MHz Vertical) interference 18:56 ET and 19:51 ET - note proximity to pre-game fireworks and military helicopter flyovers.

These conflicting operations raise even more concerns for PSSI about whether the RFI coordination process will be able to continue to allow for interference-free provision of services to our video customers when many new and powerful users are added to the C-Band. We are concerned that a proper RFI coordination plan cannot be prepared and adhered to without knowledge of the location of future 5G nodes operating in the repurposed C-Band. PSSI recognizes that under the Communications Act, wireless operators do not need prior approval for the construction of the vast majority of its antenna transmission sites³. However, to prepare a valid RFI coordination plan, the location of new 5G nodes will need to be identified and shared, just as the locations of transmit earth stations have been shared for decades. Accordingly, PSSI urges the Commission to:

- Require all operators (e.g., earth station, 5G, others) in the repurposed C-Band spectrum to report the coordinates, frequencies and ERP of their transmitter sites so that a valid RFI plan can be prepared and harmful interference sources identified.
- Direct the Enforcement Bureau to monitor the operational signal strength of these 5G node locations to ensure physical damage is prevented to transportable and FSS earth stations, as well as signal protection from interference. Given the complicated relationships that will exist while reallocating the C-Band during transition and beyond, the Enforcement Bureau must have the authority to prioritize usage and the resources needed to enforce FCC rules and resolve frequency conflicts (both long term and in real-time).
- Devote sufficient enforcement resources to prevent future unauthorized uses and violations of license conditions by those operating Part 15 or other authorized devices in C-Band spectrum.

³ 47 U.S.C. § 319(d)



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PSSI continues to be concerned about how the transition to the repurposed portion of the C-Band spectrum will be conducted. Although PSSI continues to believe that the CBA plan for repurposing of the band is preferable to a public FCC auction as the best and fastest means of accomplishing a transition, meaningful involvement of both the incumbent and new users of the C-Band, including programmers, transportable operators, teleports, etc., is required in the transition process and mechanisms. This complex and critical function should not be left to the CBA members alone. The Commission should require such representation by the user community in its final rules. Based on our 40 years of experience and expertise in C-Band operations, PSSI repeats its offer to assist in the transition and re-allocation of the C-Band, regardless of the auction process (private or public) that is selected.

Finally, in addition to the meaningful involvement of the user community in the transition administration, the final rules adopted by the Commission should address the following:

- Will there be available OU bandwidth available across the arc during the transition period when the carriers will need to double-illuminate transponders to transfer customers?
- Will the limited remaining OU bandwidth be affordable to users?
- Will current licensed C-band users be protected and reimbursed for the loss of their access to spectrum?
- Will the FCC ensure and oversee that licensed C-band users are treated fairly and appropriately?

As yet, there are no clear answers to these questions. Although PSSI understands the FCC's urgency of moving forward and issuing an order to compete in the global 5G "race," expediency should not sacrifice concrete solutions to these problems. If this means a few months' delay in the issuance of a Report and Order, that is preferable to a rush to judgment that will complicate and impede implementation and cause substantial harm to the vitally important U.S. video industry.



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PSSI respectfully urges the Commission to address the issues and questions noted above in its Report and Order.

Very truly yours,

A handwritten signature in blue ink, appearing to be "R. Lamb", written over a horizontal line.

Robert C. Lamb
Manager and Chief Executive Officer

cc: Julius Knapp
Jim Schlichting