



August 7, 2019

VIA ELECTRONIC FILING

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

Re: Expanding Flexible Use of the 3.7 – 4.2 GHz Band,
GN Docket No. 18-122, RM-11791, RM-11778
Response to Public Notice, dated July 19, 2019

Dear Ms. Dortch:

Cumulus Media Inc. (“Cumulus”) and Westwood One, LLC (“Westwood One”) hereby submit these comments (“Comments”) in response to the *Public Notice*, Wireless Telecommunications Bureau, International Bureau, Office of Engineering and Technology, and Office of Economics and Analytics Seek Focused Additional Comment in 3.7-4.2 GHz Band Proceeding, DA 19-678 (released July 19, 2019), requesting comment, *inter alia*, on the proposal (“Proposal”) presented by ACA Connects – America’s Communications Association (“ACA Connects”), the Competitive Carriers Association (“CCA”), and Charter Communications, Inc. (“Charter”) (collectively, the “Proponents”), which proposes to reallocate 370 MHz of C-band spectrum by relying in substantial part on the use of terrestrial fiber delivery. Specifically, the Proponents claim that 370 MHz will be cleared in 18 months in urban areas and that their Proposal will not require the launch of any additional satellites for the reallocation of the C-band to be implemented. In support of these Comments, the following is stated.¹

Cumulus and Westwood One recognize that the Proposal presented by Proponents would, at least in theory, enable radio and television broadcasters to continue their existing earth station

¹ Cumulus, through various indirect wholly-owned subsidiaries, owns and operates 428 commercial radio stations in eighty-nine (89) markets. Cumulus utilizes the C-band for the distribution of news, news talk, and entertainment programming on a nationwide basis, including various award shows and high profile events of national significance. Cumulus utilizes its centralized production facilities in combination with the C-band to distribute its audio content to all of its 89 local markets across the country. Westwood One, a wholly-owned subsidiary of Cumulus, is the largest radio network in America providing programming 24 hours per day, seven days per week (“24x7”), to over 245 million listeners each week via Westwood One’s affiliated radio stations throughout the country. Westwood One utilizes over five thousand (5,000) C-band receive-only earth stations in its distribution of news, talk, sports, music and other audio content to 8,000 commercial radio station affiliates in the continental U.S., Alaska and Hawaii in cooperation with 1,500 broadcast partners.

operations on a repacked basis within the existing C-band. As demonstrated herein, however, Cumulus and Westwood One have serious concerns regarding the technical viability of the Proposal and for the reasons stated herein, request that the Proposal not be adopted.

Implementation Period Not Realistic. The Proponents' assertion that fiber can be installed and operational, even in urban areas, within 18 months is far from realistic. Providing the facilities, data centers, and cable headends with the necessary equipment requires a considerable amount of effort, design, deployment of resources, and testing before any such facility can be put into service. Agreements would also need to be negotiated and executed to ensure that the content and properties are appropriately protected. All of these matters would need to be in place before any fiber could begin to be deployed. Moreover, in some municipalities it can take more than 18 months to obtain the necessary permits and rights of way required to lay fiber to cable headends where it is not currently available, or where diverse and redundant fiber paths have not previously been provided. As the C-Band Alliance ("CBA") previously has noted, there also would need to be an extensive testing period for each fiber connection before use of the existing satellite service could cease in order to ensure that the fiber configuration is capable of providing high quality and reliable service.

Fiber Not a Viable Alternative to C-Band. The record in this proceeding establishes that due to cable cuts – often referred to as “backhoe fade” – C-band availability often exceeds that of fiber, even in urban areas.² The reach of fiber generally has been limited to a few hundred of the largest metropolitan areas and, thus, has not served as a substitute for the nationwide footprint of the C-band satellite infrastructure, at least to this point.³ Moreover, fiber does not have the same combination of efficiency and reliability as the C-band for content delivery. In order to ensure the necessary degree of reliability, redundancy of fiber lines would be required in most instances, which would multiply the expense.⁴

Westwood One's radio station affiliates rely on the C-band for its 99.999% rate of reliable uplink delivery with no cost to its affiliated radio stations other than the initial capital expense of installing a satellite downlink antenna. Many of Westwood One's affiliates are small market broadcasters located in rural areas, who do not have access to a terrestrial network such as fiber or high speed Internet, which leaves C-band as the only alternative option.

As demonstrated in the Cumulus/Westwood One Comments in this proceeding,⁵ one example of the limitations of fiber is illustrated through the failure of many terrestrial based services, including fiber, on September 11th, the day of the attack on the World Trade Center in

² SIA Comments at 4, citing AT&T Comments at 7, GN Docket No. 17-183 at 5, 7 (filed Oct. 2, 2017).

³ SIA Comments at 4, citing SIA Reply Comments, GN Docket No. 17-183 at 14-16 (filed Nov. 15, 2017); SES Reply Comments, GN Docket No. 17-183 at 14-16 (filed Nov. 15, 2017); Comcast *Ex Parte*, GN Docket Nos. 17-258 & 18-122 at Attachment 7 (filed May 16, 2018).

⁴ NCTA Comments at 7, citing Reply Comments of SES, GN Docket No. 17-183 at 16 (filed Nov. 15, 2017); ACA Comments, GN Docket No. 17-183 at 17 n.34 (filed Oct. 2, 2017).

⁵ Cumulus/Westwood One Comments, GN Docket No. 18-122 (filed Oct. 29, 2018) at 5-6.

New York City. Through the use of its C-band facilities, Westwood One was able to deliver news and time-sensitive emergency-related information to Cumulus' and its other New York-based affiliates. Shortly after the attack, Westwood One was contacted by stations in the New York City area requesting access to national news coverage who had no affiliation with a network news product. Due to the reliability, quality, and capacity provided by the C-band, Westwood One was able to quickly authorize and deliver vital national news content to stations which had lost terrestrial fiber links as a result of the failure of a major central telecommunications office during that horrific event. The attacks on September 11th are just one example – even in the largest urban environment in the country – where fiber could not provide a satisfactory substitute for the C-band.

If existing earth stations were forced to use fiber as an alternative for the distribution of video content, the result would leave cable systems, and possibly broadcasters as well, in thousands of smaller cities, towns, and rural areas with no affordable means to access the programming they now provide to their respective communities, assuming they would be able to access that programming at all.

The costs of attempting to extend the fiber infrastructure would also be astronomical. Despite Proponents' Proposal, the ability to replicate the reliability of C-band Fixed Satellite Service ("FSS") would require expenditures that are likely to be well beyond the financial reach of smaller broadcasters or cable systems. In most cases they would be forced to pass the substantial price increases on to their subscribers and advertisers, or cease operations altogether.⁶ The effect of implementing such an inferior substitute alternative would result in a sharp demarcation between those persons residing in urban areas, who likely would have the luxury of being able to continue to enjoy a full complement of news, sports, and entertainment programming, and those residing in less populated areas, whose video and audio content delivery offerings either would be materially impaired or terminated due to the substantial increase in costs.

Perhaps the best illustration of just how far Proponents' Proposal has missed its mark is demonstrated in the 2018 Broadband Deployment Report⁷ in which the Commission found that there are over 24 million Americans without access to broadband. Specifically, with respect to fixed 25 Mbps/3 Mbps and 10 Mbps/3 Mbps LTE, there are approximately 44 million Americans who lack access to both of those services. *Id.* at 1684. The Commission also found that there are *a total of 66.1% of Americans living in rural and Tribal areas* – as compared to only 2.1 % of Americans living in urban areas – who still lack access to fixed 25 Mbps/3 Mbps broadband. *Id.* at 1681.

⁶ SIA Comments at 5.

⁷ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 2018 Broadband Deployment Report, 33 FCC 1660, 1681 (2018) ("*Broadband Report*").

In a dissenting statement to the *Broadband Report*, Commissioner Rosenworcel stated:

There are 19 million Americans in rural areas who lack the ability to access high-speed services at home. There are 12 million school-aged children who are falling into the Homework Gap because they do not have the broadband at home they need for nightly schoolwork.

Id. at 1748.⁸

The gap between urban areas and rural and Tribal America continues to remain significant: 30.7% of Americans in rural areas and 35.4% of Americans in Tribal lands lack access to fixed terrestrial 25 Mbps/3 Mbps broadband. *Id.* at 1681. Former Commissioner Clyburn, who also provided a dissenting statement to the *Broadband Report*, noted that the data contained in the *Broadband Report* establishes that there are tens of millions of Americans who lack access to broadband, which puts them at a severe disadvantage when it comes to affording them a robust opportunity “in education, healthcare, government services, and civic participation.” *Id.* at 1741.

The digital divide may be even greater than originally believed. Commissioner Rosenworcel recently stated:

We know that too many Americans lack access to broadband. According to the agency’s most recent report, more than 21 million Americans have no access to high-speed internet service. *But there is reason to think that the digital divide is a whole lot wider than our official statistics suggest. One study has found that 162 million people across the country do not use internet service at broadband speeds.* That turns our digital divide into a yawning chasm.^[9]

The data contained in the *Broadband Report* and Commissioner Rosenworcel’s recent statements in *Digital Data Collection* are instructive with respect to Proponents’ Proposal. The Commission has been reallocating spectrum to the wireless industry for more than twenty (20) years.¹⁰ Nevertheless, as demonstrated above, wireless operators have yet to provide broadband service to at least 19 million Americans in rural areas across the country, including 12 million

⁸ EducationSuperHighway estimated that over 2,000 schools are still in need of access to fiber in order to meet connectivity goals. Over 75% of those schools that lack access to fiber infrastructure necessary to meet short-term goals are located in rural areas or small towns. When those school districts sought fiber services in 2016, nearly half of them failed to receive any bids from service providers. *See Id.* at 1698.

⁹ *Establishing the Digital Opportunity Data Collection*, Report and Order and Second Further Notice of Proposed Rulemaking, FCC 19-79 (rel. August 6, 2019) (“*Digital Data Collection*”) (Statement of Commissioner Jessica Rosenworcel, approving in part, dissenting in part, at ¶6.) (emphasis added).

¹⁰ *See, e.g., Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, 13 FCC Rcd 7418 (1998) (establishing a core spectrum of television channels between 2-51 to facilitate the reallocation of channels 52-69 for wireless use).

school-aged children. Despite the enormous digital divide that continues to exist between those living in urban areas and those residing in rural and Tribal areas, the Commission has now been asked to believe that if it will reallocate 370 MHz for the incremental use of 5G – as opposed to 4G – services, within five (5) years redundant fiber will be deployed throughout the country – to both rural and Tribal areas, where broadband service never has been made available before. The Commission should not be so motivated by its desire to implement 5G service that it accepts Proponents’ Proposal at face value given the long history of the complete absence of broadband service in a great many rural areas throughout this country.

The Commission also should be mindful that the C-band is critical for purposes of public safety and providing emergency services. The record establishes that the C-band is “ubiquitous” – reaching all corners of the country, including rural areas that can be impossible to reach with fiber or other alternative distribution methods.¹¹ The ability of the C-band to perform at a high level under adverse or severe weather conditions is essential for safety-of-life communications such as air traffic control, distribution of emergency alerts, and National Weather Service operations, as conditions that create the greatest degree of attenuation are those in which maintaining connectivity is most critical.¹² National Public Radio (“NPR”) stated in its comments that the reliability of the C-band is essential to its network because, with eighty percent (80%) of its programming broadcast live, the reliability provided by the C-band is critical to the emergency-related alerts and other time-sensitive information provided to local communities both during and after natural disasters and other emergencies.¹³ Indeed, satellite-delivered programming generally is regarded as the only reliable means for distribution of essential weather data, allowing watches and warnings without interruption to listeners, first responders, and recovery personnel, even if the terrestrial connection is broken as occurred during and after Hurricanes Katrina and Maria, when it became necessary to maintain forecast office operations through satellite connections.¹⁴

The substantial importance of the public safety component of the C-band is further demonstrated by Premiere Networks’¹⁵ partnership with the Federal Emergency Management Agency (“FEMA”) to transmit the Emergency Alert System (“EAS”) nationwide messages to its radio affiliates on a redundant delivery basis to ensure full, nationwide participation in the EAS.¹⁶ iHeartMedia elected to use the C-band spectrum as a means of enhancing the distribution

¹¹ Microspace Communications Corporation *Ex Parte* Presentation, GN Docket 18-122 at 2 (filed July 3, 2018).

¹² SIA Comments at 4.

¹³ NPR Comments at 7.

¹⁴ *See* Raytheon Company Comments at 4-5 (filed June 15, 2018).

¹⁵ Premier Networks (“Premier”) is a subsidiary of iHeartMedia Communications, Inc. (“iHeartMedia”).

¹⁶ Comments of iHeartMedia at 2.

of the EAS after certain states were unable to properly receive the nationwide EAS test alerts.¹⁷ Thus, as demonstrated above, if the Commission does not preserve the C-band for use by existing earth stations, the Commission's action could have a harmful and significant impact on public safety, including the ability to provide safety-of-life communications and the distribution of EAS alerts.

Potential Impact of AM Revitalization Proceeding. The importance of the C-band from a public safety perspective becomes even more critical given the Commission's pending proposals in the AM Revitalization proceeding,¹⁸ in which the Commission has proposed to reduce the protections currently afforded to Class A AM stations. As demonstrated in Cumulus' Comments,¹⁹ the Commission's proposals to reduce the protection afforded to Class A AM stations would result in vast areas of interference where those stations currently do not receive interference. As a result, if the Commission's proposals were adopted they would substantially impair the ability of those primary entry point (PEP) stations in which FEMA has invested substantial federal funds to relay their signals as contemplated by the IPAWS Modernization Act,²⁰ and, consequently, have a significant adverse effect on the EAS.

No Management of Transition Process. The Proponents' Proposal also fails to provide any clarity regarding where responsibility lies with respect to managing the process of transitioning hundreds of individually-owned cable headends in urban areas from C-band FSS to terrestrial fiber. Specifically, the Proposal fails to specify who will be accountable for ensuring that the nationwide fiber roll out is accomplished in a coordinated timeframe. There also is no indication of whether (i) satellite operators would be forced to operate two separate networks on an indefinite basis, and (ii) programmers and broadcasters would be required to file progress

¹⁷ *Id.*

¹⁸ See *Revitalization of the AM Service*, Second Further Notice of Proposed Rulemaking, 33 FCC Rcd 9946 (2018) (“*SFNPRM*”).

¹⁹ See Cumulus Comments, MB Docket No. 13-249 (filed Feb. 6, 2019).

²⁰ Pub. L. No. 114-143, 130 Stat. 327, 329-32 (2016). FEMA filed comments in response to the Commission's *SFNPRM* in which it stated:

The changes being considered by the FCC in the (*SFNPRM*) to the interference protections of Class A AM stations, *particularly to the protections for the Class A AM stations' nighttime and critical hours operations, would decimate the system developed and funded by FEMA, under the mandate of Congress, for a robust communications - distribution network so that citizens of the United States will receive, under all conditions, a Presidential message in time of national emergency.* The United States government has invested, and will continue to invest, millions of dollars in this communications-distribution network, which is reliant on skywave signal coverage by Class A AM stations.

Comments of the Federal Emergency Management Agency, MB Docket No. 13-249 (filed January 29, 2019) at 1 (emphasis added).

reports with the FCC regarding each urban distribution point, or whether such a progress report would be required to be filed by some third party. At a minimum, these unanswered questions must be addressed before the Commission can even begin to consider Proponents' Proposal which relies exclusively on fiber as a means of clearing the C-band spectrum.

Excessive Costs to Earth Station Operators. Even assuming, *arguendo*, that the *initial* fiber costs would be paid for through the auction revenues (as Proponents suggest), by no means would that eliminate the financial burden that would be imposed on existing earth station operators by having to rely, at least in part, on a fiber distribution system. As a threshold matter, earth station operators would incur increased operational and staffing costs beyond those costs which are incurred today.

Proponents allege that initially “[p]rogrammers would purchase IRUs and install equipment necessary to deliver their programming to between 40 and 50 existing data centers across the contiguous U.S.”²¹ Those costs presumably would be reimbursed from auction proceeds. Programmers and broadcasters would incur additional costs, however, because they would be required to hire technical personnel with knowledge regarding the architecture and maintenance of a fiber delivery system. Proponents' Proposal also fails to address the question of whether broadcasters and cable programmers would be expected to pay the increased costs associated with utilizing both a fiber network and the C-band, the latter of which would continue to be required to serve rural cable headends in those “few select areas” where Proponents claim it will take five (5) years to deploy the necessary fiber.²²

Cumulus and Westwood One rely upon the C-band because it is extremely cost-efficient. It would be entirely unreasonable to require incumbent earth station operators to have to incur additional expenses which, as stated above, would include both hiring additional technical staff and paying for both the use of fiber and C-band for at least five (5) years. Moreover, the build-out period is likely to be longer because redundant fiber will need to be deployed in all rural areas where C-band is currently utilized.

Failure to Account for Dual Illumination Impacts Implementation Timetable and Creates Uncertainty. For a variety of reasons, the Proponents' Proposal fails to provide the same level of certainty as that presented by the CBA. As an initial matter, the CBA and its members are committed to launching new satellites to ensure that they will have the same on-orbit capacity to carry video and other services in the proposed 300 MHz of remaining spectrum that they carry today in the 500 MHz of C-band spectrum.²³ According to the CBA, the new satellites are necessary to clear the 200 MHz in three (3) years.²⁴ Proponents' claim, however, that their

²¹ Proponents' July 2, 2019 Ex Parte Letter at 4.

²² *Id.*

²³ Letter from Jennifer D. Hindin, Counsel for the C-Band Alliance, GN Docket No. 18-122 (Feb. 7, 2019).

²⁴ Letter from Jennifer D. Hindin, Counsel for the C-Band Alliance, GN Docket No. 18-122 (April 9, 2019), Attachment at 6.

Proposal does not require the CBA's new satellites to be built or launched in order to clear 370 MHz of spectrum within 36 months. Instead, Proponents' Proposal is based on the assumption that non-MVPD programming services, such as those provided by radio and television broadcasters, including those services provided by Cumulus and Westwood One, will be repacked into the upper 130 MHz portion of the C-band and continue on the existing on-orbit satellites. At the same time, video programming currently provided on MVPDs would be transitioned from C-band FSS use to terrestrial fiber delivery. Proponents' concede, however, that the deployment of fiber cannot reach all cable headends within 36 months – "some will take five years in hard-to-reach areas."²⁵ Thus, the Proponents' Proposal would require that all MVPD and non-MVPD programming continue to be carried on satellite for at least five (5) more years.

Proponents' estimated timetable, both for urban and rural areas, fails to account for the requirement of dual illumination. The Proposal is based on the assumption that the content that will continue to be carried via satellite during the transition period can be transmitted from any of the 24 satellites operating over the U.S. orbital arc. In the unlikely event the Proposal were to be implemented, it would require cable headends to install new antennas pointing to new orbital locations. Even assuming, *arguendo*, that cable headends have the real estate necessary to host the requisite new antennas, Proponents' Proposal would add greater complexity to an already complicated framework.

More importantly, the Proposal wholly ignores the fact that any plan requiring satellite-delivered content to move from one frequency (or satellite) to another must allow for up to three (3) months of dual illumination to ensure that all earth stations are properly pointed and tuned. Dual illumination, which requires twice the satellite capacity, is necessary to deliver the same content during the relevant time period. Accordingly, Proponents' claim that 370 MHz can be cleared in 36 months without the construction and launch of new satellites is based on an erroneous factual premise, and, therefore, Proponents' estimated timetable for implementing 5G service lacks an accurate factual foundation.

Furthermore, unlike the CBA's technical proposal in this proceeding which has been put through a series of field tests and, from an engineering standpoint, has been proven technically sound, Proponents' Proposal has not undergone the same rigid engineering analysis. For that reason, despite Proponents' proposed use of the remaining 130 MHz of the C-band, radio and television broadcasters can have no assurance that those earth stations that would continue to operate in the C-band if the Proposal were to be adopted would be free of interference.

Conclusion. As demonstrated herein, if the Commission were to adopt the Proposal set forth by the Proponents and transition 370 MHz of the C-band to terrestrial fiber, the Commission's action would have a substantial negative impact upon the business operations of both Cumulus and Westwood One, as well as other programmers and MVPDs whose businesses

²⁵ Letter from Pantelis Michalopoulos. Counsel for ACA Connects, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-122 (filed July 9, 2019), Attachment (Cartesian Study at 3).

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are dependent upon the low-cost and high reliability of the C-band. The record in this proceeding contains overwhelming evidence that fiber is not a viable alternative to the C-band for a variety of reasons. Therefore, for the reasons stated herein as well as those in the Comments filed October 29, 2018 by Cumulus and Westwood One, Proponents' Proposal should not be adopted.

Respectfully submitted,

/s/ Andrew S. Kersting

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