

March 25, 2019

By ECFS

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

Re: Expanding Flexible Use of the 3.7 to 4.2 GHz Band, Docket No. 18-122

Dear Ms. Dortch:

ACA – America’s Communications Association (“ACA”) writes to express its alarm at the rapidly escalating amounts of C-band spectrum that commenters propose taking away from satellite use and reallocating to 5G services, and to ask the Commission to conduct significant fact-gathering and to avoid disenfranchising rural America. T-Mobile has claimed that 200 MHz is insufficient to meet the needs of 5G service providers.¹ Likewise, CTIA has intimated that at least 300 MHz is needed for the U.S. to maintain its global leadership in wireless.² Qualcomm

¹ Letter from Steve B. Sharkey, VP of Government Affairs, Technology and Engineering Policy, T-Mobile, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 18-122, at 1 (Mar. 8, 2019) (“the 180 megahertz of spectrum that would be made available under the C-Band Alliance proposal in this proceeding is insufficient because, among other reasons, it would be unable to support the mid-band spectrum requirements of multiple providers.”).

² Letter from Scott K. Bergmann, Senior VP of Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 18-122, at 2 (Feb. 7, 2019) (“To maintain global leadership in wireless, the United States should act quickly to make additional mid-band spectrum available for terrestrial wireless use, as other nations also move quickly to make substantial amounts of licensed mid-band spectrum available. Indeed, on average, other countries plan to make 300 megahertz of licensed mid-band spectrum available by 2020, while the U.S. has definitive plans to make only 70 megahertz of licensed mid-band spectrum available in the 3 GHz range.”); Comments of CTIA, GN Docket No. 18-122, at 9 (Oct. 29, 2018) (“And the C-Band Alliance’s recent announcement that it intends to clear 200

has argued that the full 500 MHz should be refarmed.³ These proposals are no less than existential threats to ACA members, particularly rural cable operators, for whom video backhaul using the C-band is a crucial input. The proposals are made on the fly and with scant or no evidentiary support, and without any serious attempt to assess or address the harms that such plans will create for multichannel video programming distributors (“MVPDs”) and their customers, particularly those in rural areas.

Further compounding the harm, T-Mobile has proposed that the rights to the newly repurposed spectrum be sold on a local market basis.⁴ This, of course, would likely lead to vastly more spectrum being refarmed in urban areas, where demand for 5G services will be greater, than in rural areas. On the surface, this might appear to be a good thing for rural users. In actuality, however, because of the national nature of satellite service, it would be disastrous for rural America. If more spectrum is leased in urban than in rural areas, then its availability in rural areas will be of little value to rural America if large programmers do not find it worth their while to backhaul certain content by satellites at all. Alternatively, for content to be transmitted by satellite, rural users would have to foot the cost of the transmission—costs now shared by the entire nation.

ACA therefore requests:

- that the Commission, with help from a number of different stakeholders, gather information crucial to determine how much of the C-band can be refarmed to 5G services without causing excessive harm to current users, and also to quantify the harm that any such refarming would inflict on users. Without this information, the figures that are being floated in this proceeding, and that are gradually increasing, are shots in the dark, and any decision as to how much spectrum should, or can, be refarmed would lack foundation; and
- that, to the extent that the Commission considers proposals for 5G refarming that disproportionately refarm spectrum in urban areas while leaving it nominally available in rural areas, the Commission must fully assess the serious harms that such policies are likely to create for rural users and put in place concrete measures to address these harms.

ACA has made clear its commitment to working with the Commission and stakeholders on expanding the use of the C-band. ACA continues to support limited C-band refarming so long as

megahertz, resulting in 180 megahertz of flexible-use spectrum, is an improvement over the earlier 100-megahertz proposal. But, the Commission should go further and require more than that - hundreds of megahertz - be repurposed on a nation-wide basis.”).

³ Reply Comments of Qualcomm Inc., GN Docket No. 18-122, at 2 (“The FCC should continue to examine all means of opening up the full 500 MHz-wide band for flexible use because there is no other comparable block of mid-band spectrum available in the U.S.”).

⁴ See Letter from Steve B. Sharkey, VP Government Affairs, Technology and Engineering Policy, T-Mobile, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 18-122, at 2-4 (Feb. 15, 2019) (“T-Mobile Ex Parte”).

its members are made whole for the harms they will suffer, and so long as compensation for their rights, investment, and alternative backhaul modes does not discriminate between urban and rural users. While ACA is not necessarily completely opposed to proposals to refarm large amounts of C-band spectrum, ACA believes that the Commission must carefully assess the nature of the harm and disruption that such proposals will create, and must be prepared to take the likely very costly measures that will be necessary to address this harm and disruption. ACA also believes that the Commission should request that any stakeholder submitting a refarming proposal provide sufficient details in the record so that all stakeholders can carefully examine that proposal, and so that the affected parties can make sound and detailed determinations of the proposal's costs and benefits based on the facts provided in the record.

I. PARTIES HAVE FLOATED MANY LARGE FIGURES FOR THE SPECTRUM TO BE REFARMED, ALL WITHOUT FOUNDATION

ACA has supported refarming a portion of the C-band for 5G, but advised caution in light of the extensive use of the C-band by ACA members and others for video transport.⁵

Other parties have other ideas, however. The C-Band Alliance (“CBA”) itself, which in ordinary circumstances would be a champion of existing users’ rights, had initially suggested the refarming of 100 MHz.⁶ It then gradually increased that amount to 200 MHz.⁷ Each time, the explanation as to why refarming these increased amounts will permit the satellite industry to provide the same quantity and quality of content is scant, if any. And, as ACA has explained, even if CBA were right that the same quantity and quality of services is possible, the harm would still be huge, as competitive choices for end users would disappear, coordination among the satellite operators would increase, and prices would go up.⁸

⁵ See, e.g., Comments of the American Cable Association, GN Docket No. 18-122, at 6-8 (Oct. 29, 2018) (“ACA Comments”); Reply Comments of the American Cable Association, GN Docket No. 18-122, at 3-6 (Dec. 11, 2018) (“ACA Reply Comments”).

⁶ Letter from Henry Gola, Counsel to Intelsat Corp., to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket Nos. 17-183, 18-122, at 2 (Apr. 23, 2018) (“The presentations reinforced that the 100 MHz near-term clearing target for terrestrial mobile use is what each operator can accomplish reasonably within 18-36 months following a final Commission order, while ensuring the continued availability of highly reliable service to existing video customers.”).

⁷ Comments of the C-Band Alliance, GN Docket No. 18-122, at i (Oct. 29, 2018) (“The C-Band Alliance projects that repurposing up to 200 MHz can be completed within 18-36 months of a final Commission order.”).

⁸ See Letter from Pantelis Michalopoulos, Counsel for the American Cable Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 18-122, at 3 (Feb. 12, 2019).

But, while CBA's explanations have been sketchy, those of the 5G stakeholders, like T-Mobile, CTIA, and Qualcomm, have been virtually non-existent. These entities essentially ignore the potentially disastrous effects of such policies on rural America and offer up no serious proposal for addressing these harms.

II. MITIGATING, QUANTIFYING, AND REDRESSING THE HARM TO EXISTING USERS ARE CRUCIAL PREREQUISITES TO ANY 5G REFORMING, LET ALONE THE AMOUNTS FLOATED BY 5G STAKEHOLDERS

A. C-Band Refarming Portends Many Harms for Earth Station Users

As ACA has explained before, the CBA proposal for 5G refarming threatens many problems: loss of programming; lower quality resolution; higher prices; recourse to much costlier alternatives previously considered unthinkable such as fiber, where it exists; construction of vast new fiber infrastructure; destruction of the value of investment; loss of rights to the spectrum; and risk of harmful out-of-band emissions from the new services.⁹

B. Refarming of the Amounts of Spectrum Suggested by 5G Proponents Would Be Lethal to Small Cable Operators

While any 5G refarming (including that proposed by the CBA) would produce serious harm, an extreme amount of spectrum refarmed may threaten the existence of earth station users that rely upon large amounts of C-band spectrum for the services they provide. If small cable operators are deprived of more than a third of the spectrum they use today to receive video programming, it is doubtful whether they can continue to offer their video programming service at all.

Mitigation and quantification of the harms is especially important because, in ACA's view, this is not a case where two times the lost spectrum equals twice the harm. ACA believes that the harm from losing 300 MHz is much more than double the harm of losing 150 MHz. The reasons are simple:

1. The loss of 150 MHz may require protection from higher prices, protection from out-of-band emissions, and the need to resort to alternative modes of delivery for those users to whom they are available while the others (to whom alternatives are not available) suffer a deterioration of their service.
2. Losing 300 MHz or more will include all of the foregoing harms except that another mode of delivery will nearly certainly need to be permanently secured, such as the construction of new fiber at a cost that is easily much more than double the cost that small cable operators would incur under the 150 MHz scenario.

⁹ See *id.* at 2-3; ACA Comments at 9-12.

3. The likely superadditive nature of these harms means the harms of the reallocation of different amounts of spectrum on a national basis must be quantified and calibrated with special care. The Commission needs to carefully weigh the destructive impact these significant levels of reallocation would cause, and recognize the significant costs that would be incurred in order to redress these harms with appropriate measures.

C. Refarming the Amounts of Spectrum on a Market-by-Market Basis as Suggested by One 5G Proponent Would Be No Less Lethal to Small Cable Operators

T-Mobile recommends a balkanized refarming process, where the amount of spectrum to be refarmed in each local market would be determined by means of a market specific auction.¹⁰ This, of course, would likely lead to vastly more spectrum being refarmed in urban areas, where demand for 5G services will be greater, than in rural areas. On the surface, this might appear to be a good thing for rural small cable operators. In actuality, however, because of the national nature of satellite service, it would be disastrous for rural America.

The reason is straightforward: if more spectrum is leased in urban than in rural areas, then its availability in rural areas will be of little value to rural America if large programmers do not find it worth their while to backhaul certain content by satellites at all. Alternatively, for content to be transmitted by satellite, rural users would have to foot the cost of the transmission—costs now shared by the entire nation.

In particular, there is a risk that the industry might tip to a new equilibrium where a significant amount of programming is only available to be delivered via terrestrial fiber, and MVPDs and their customers in rural and less dense areas are faced with the unpalatable alternatives of incurring enormous costs to build new fiber links where none exist or to completely do without significant amounts of programming.

Alternatively, for C-band delivery to still be available to MVPDs in rural areas, when MVPDs in urban areas are receiving all of their programming via terrestrial delivery over fiber, the entire cost of operating the C-band satellite industry will need to be borne by the small fraction of the remaining MVPDs and their customers that depend on C-band service for delivery of their programming. This can only mean one or both of two things: the price of programming delivered via C-band downlinks will rise dramatically over and above the price increase from industry coordination and elimination of choice described above; and/or significant amounts of programming will no longer be available via C-band downlink even if spectrum remains available in rural and less dense areas.

¹⁰ See T-Mobile Ex Parte at 1 (“First, the Commission would hold a forward auction in which terrestrial operators bid to establish a purchase price for the C-band spectrum in every Partial Economic Area (‘PEA’). Second, that purchase price would be offered to satellite operators and earth station registrants. Third, the Commission would award the purchase price in the PEA to whichever group that is willing to clear the band for the least amount of money.”).

ACA does not absolutely object to and reject any consideration of auction mechanisms that may allocate different amounts of spectrum in different areas. But ACA believes that, when assessing the harms that any such proposal would cause and developing plans to compensate end users for this harm, the Commission must take into account the fact that auction mechanisms that refarm large amounts of spectrum in urban areas, while nominally still leaving spectrum available in rural areas, may cause as much harm to rural users as plans that refarm the same amount of spectrum on a national basis.

D. The Commission Must Have Plans in Place to Protect Small Cable Operators if it Decides to Refarm the Amount of Spectrum Suggested by 5G Proponents

ACA recognizes that there is a need to make additional spectrum available for 5G use. ACA has, and will continue to, work constructively with the Commission to help it fully assess how the harm to end users will vary with the amount of C-band spectrum that will be refarmed in order to help the Commission determine how much C-band spectrum should be refarmed.

ACA believes that it may be possible to refarm a limited amount of spectrum without necessarily damaging the C-band satellite industry's ability to satisfy the existing and future demand for its video backhaul services.¹¹ While even this type of policy will create significant costs and harms, including, among other things, the threat of price increases and the need to install filters, for which end users must be compensated, the nature of the harm and disruption that end users will experience will be an order of magnitude larger, as well as an order of magnitude more uncertain, under any refarming policy that leaves the C-band satellite industry unable to meet a significant share of the existing demand for its services.

Furthermore, the harms from such a policy will be borne disproportionately by rural America. While ACA is not absolutely opposed to proposals that refarm large amounts of C-band spectrum, ACA believes that the Commission must carefully assess the nature of the harm and disruption that such proposals will create and must be prepared to take the likely very costly measures necessary to address this harm and disruption.

III. RESULTING REQUESTS

ACA thus respectfully requests that the Commission conduct significant fact-gathering to supplement the record to permit stakeholders to evaluate the refarming proposals, and to avoid disenfranchising rural America.

¹¹ Whether or not there is such an amount, and, if so, what it is, has not yet been established by any evidence placed in the public record of this proceeding. In particular, CBA has provided essentially no public evidence to support its claim that up to 200 MHz of spectrum could be refarmed without damaging the C-band satellite industry's ability to meet most of the existing demand.

A. Information Gathering

1. The Commission should expeditiously put in place a protective order in this proceeding. Much of the information essential to evaluation of these issues is by its nature confidential, and the lack of confidentiality safeguards should be removed as a reason for parties to withhold it.
2. The Commission must make its own determination of the maximum amount of spectrum that can be reframed while containing the harms to users to a manageable extent. Furthermore, the information that the Commission uses to make this determination should either be made completely public or should at least be made available to all interested parties on a confidential basis. It should determine the current level of capacity utilization of the industry, what level of capacity utilization the industry would need to operate at to continue to meet existing demand under the various refarming proposals it is considering, and whether or not it would be possible for the industry to actually operate at the projected capacity utilization rates that would be necessary to continue to meet existing demand.
3. The Commission should investigate the issue of whether or not prices are likely to rise if all satellite operators are operating at near full capacity and end users therefore do not have the ability to switch providers in response to price increases. As part of this investigation, the Commission should ask CBA's members to submit data on their past and current pricing and margins and capacity utilization rates to allow an econometric prediction of price changes. Furthermore, this data should either be made completely public or at least be made available to interested parties on a confidential basis.
4. The Commission should gather information on the availability and cost of fiber as an alternative. ACA, for its part, is working on assembling such information and will submit it to the Commission.
5. The Commission should assemble information on the value of the investments that users have made in earth station infrastructure and the extent of the loss of that value to result from refarming. Again, ACA plans to contribute to this information-gathering exercise.
6. All in all, it is imperative that the Commission conduct its own studies and seek input from outside parties to predict how industry structure will evolve in response to this and to have plans in place to protect and/or compensate entities that will be harmed by such a policy. Furthermore, such a plan needs to take into account the fact that MVPDs and their customers in rural areas are at particular risk of harm and that these MVPDs and their customers may suffer significant harm even if spectrum is only reallocated in urban areas.

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B. No Rural Disenfranchising

Finally, the Commission should avoid differentiated geographical re-farming that leaves the rural users to bear all of C-band satellite infrastructure's costs without fully assessing the likely harms of such a policy on rural users and putting in place plans to fully address these harms. The Commission should also avoid compensating current users of the spectrum by a method that has the effect of under-compensating those users who most need to be made whole—rural users.

Respectfully submitted,

/s/

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