

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
Expanding Flexible Use of the 3.7 to 4.2 GHz)	GN Docket No. 18-122
Band)	
)	

**JOINT REPLY COMMENTS OF THE
ABC TELEVISION AFFILIATES ASSOCIATION,
CBS TELEVISION NETWORK AFFILIATES ASSOCIATION,
FBC TELEVISION AFFILIATES ASSOCIATION, AND
NBC TELEVISION AFFILIATES**

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Summary

The Affiliates Associations’ member stations provide news, weather, sports, entertainment, and other valuable, highly-desired video content to virtually every community in the country, whether large or small, urban or rural. A significant volume of that video programming is delivered to more than 100 million American households via satellites that operate in the C-band. Whatever action the Commission ultimately determines to take in this proceeding, that critical nationwide video delivery system must be preserved and fully protected, lest consumers’ access to the most popular, valued, and often crucial emergency video content be compromised in the “race” to 5G.

Just as other broadcast commenters do, the Affiliates Associations support the Commission’s goal of closing the digital divide, and they want to see all Americans ultimately share in the significant benefits that 5G services and networks may one day yield. But Commission action that repurposes spectrum in the C-band cannot undermine the existing, essential pipeline that relies upon the C-band to bring video content to American viewers. That pipeline must remain undisturbed, reliable, smooth, and efficient.

Whatever reallocation plan the Commission pursues in this proceeding must begin with certain indispensable ends in mind—indeed, with them *ensured*: that existing C-band video delivery conduits will not be put at risk, that the video delivery services on which hundreds of millions of consumers ultimately rely will not be interrupted or degraded, and that incumbent users of the C-band will be fully protected and held harmless in the process. Further, whatever protections are put in place must be specific, and they must be enforceable. Vague, oral, “trust us” “commitments” from foreign satellite operators to protect America’s C-band’s incumbents—both users and consumers alike—are woefully insufficient. Whether codified, contractual, or

both, the obligations imposed upon those who will benefit from the repurposing of C-band spectrum must be binding.

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The ABC Television Affiliates Association, CBS Television Network Affiliates Association, FBC Television Affiliates Association, and NBC Television Affiliates (collectively, the “Affiliates Associations”)¹ submit these reply comments in response to the *Notice of Proposed Rulemaking* (“*Notice*”) in the above-referenced docket, in which the Commission seeks comment on the future of operations in the 3.7-4.2 GHz spectrum band (the “C-band”).²

Introduction

The Affiliates Associations strongly support preservation and protection of current uses of the C-band for delivery of video services to hundreds of millions of Americans and urge the

¹ Each of the ABC Television Affiliates Association, CBS Television Network Affiliates Association, FBC Television Affiliates Association, and NBC Television Affiliates is a non-profit trade association whose members consist of local television broadcast stations throughout the country that are each affiliated with its respective broadcast television network. Collectively, the Affiliates Associations represent more than 500 local television stations that are affiliated with the major broadcast networks. The Affiliates Associations’ member stations provide news, weather, sports, entertainment, and other valuable, highly-desired video content to virtually every community in the country, whether large or small, urban or rural.

² *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, Order and Notice of Proposed Rulemaking, GN Docket No. 18-122, FCC 18-91 (released July 13, 2018) (“*Notice*”).

Commission to adopt the National Association of Broadcasters’ (“NAB”) proposals for accomplishing that purpose.³ Whatever the potential merits of using C-band spectrum for commercial 5G wireless services, they pale in comparison to Americans’ dependence on C-band delivery of video services today.⁴ Nothing the Commission does in this proceeding should degrade those video services or make it more difficult for viewers to see clear streams of their most desired content.

Accordingly, the Commission should take a hard look at proposals for 5G wireless uses of the C-band to ensure that they will not degrade current uses of the spectrum.⁵ If—and only if—that test is met, the Commission should adopt a specific plan that will ensure continued smooth delivery of satellite video in the C-band and provide remedies for any current user that experiences degradation.⁶ Moreover, the Commission should adopt rules that assign any costs of allocating a portion of the C-band to 5G wireless uses to new users of the spectrum. Current satellite video services should not be saddled with additional costs—costs that will ultimately be passed on to television viewers—so that wireless companies can expand their services. And, any

³ See Comments of the National Association of Broadcasters, GN Docket No. 18-122 (Oct. 29, 2018) at 6-8 (“NAB Comments”).

⁴ See, e.g., Comments of Charter Communications, Inc., GN Docket No. 18-122 (Oct. 29, 2018) at 3 (“Charter Comments”); Comments of The Content Companies, GN Docket No. 18-122 (Oct. 29, 2018) at 1 (“Content Companies Comments”); see also *Notice* at 2 (describing C-band spectrum as “the backbone of the infrastructure for delivering video content to consumers”).

⁵ See Comments of Comcast Corp. and NBCUniversal Media, LLC, GN Docket No. 18-122 (Oct. 29, 2018) at 29 (“Comcast Comments”) (“It is the *C-Band Alliance* that bears the burden to demonstrate *to the Commission* – through specifics rather than vague generalities and a ‘just trust us’ proposition – that its plan would work and that it is more than simply an attempt to exploit American spectrum and raise costs on American consumers who will ultimately pay for this spectrum[.]” (emphasis in original))

⁶ See NAB Comments at 6-7.

plan must preserve adequate spectrum for the future delivery of new formats of video programming such as 4K and ultra high definition. Only under these conditions will reallocation of a portion of the C-band for 5G purposes serve the interests of a public that relies heavily on the current uses of the band.

I. Reliable and Efficient Delivery of Video Programming to American Viewers Depends Critically on C-band Spectrum

Multiple commenters have made the point, clearly and forcefully, that broadcasters, networks, syndicators, and other content producers rely heavily on fixed satellite services (“FSS”) operating in the C-band to distribute video programming to viewers throughout the United States.⁷ Continued, reliable access to C-band spectrum is essential to that distribution pipeline. As NAB explained, “[b]roadcasters, MVPDs and other distributors rely on the C-band as a key component of a near-flawlessly reliable distribution network that is free of service interruptions and outages that plague fiber optic networks and higher-frequency satellite systems.”⁸ That distribution network must be protected.

The Affiliates Associations will not belabor the point beyond adding their voices to the several that have urged the Commission to ensure that, whatever action it takes in this proceeding, existing uses of C-band spectrum by broadcasters, MVPDs, and others are not compromised. Any other approach, as NAB, the Content Companies, and others have pointed

⁷ See, e.g., Content Companies Comments at 2 (noting that “C-band spectrum forms the backbone of the infrastructure for delivering video content to consumers”); Comcast Comments at 4 (explaining that the NBC Network uses the C-band to deliver programming to Affiliates in all 210 Nielsen Designated Market Areas, serving nearly 120 million households); NAB Comments at 3-6 (explaining that the C-band “is used to deliver television programming to over 1,000 broadcast television stations” and “thousands of MVPD head-ends and over-the-top service providers”).

⁸ NAB Comments at 3-4.

out, would be self-defeating: Freeing spectrum in service of 5G innovation would prove to be a largely empty exercise if advances in broadband come at the expense of distribution of the very programming that broadband users value.⁹

It bears mention that consumers of video programming almost certainly have no idea what C-band spectrum is or the critical role it plays in the video distribution pipeline—precisely because FSS usage of the C-band is so ubiquitous and flawless that consumers don’t give a second thought to how they get the content they want, need, and upon which they rely.¹⁰ And it should stay that way.

II. The Commission’s Actions in This Proceeding Must Begin With an Inalterable Commitment to Protect Incumbent C-band Users

From the outset, the Commission’s decisions and actions in this proceeding must be rooted in a simple, indispensable guiding principle: It should proceed cautiously and judiciously to identify and implement an approach that balances the interests of existing users of the C-band against the benefits of allowing new uses by wireless providers (via any reallocation mechanism, whether by private arrangement, government auction, or otherwise). As several commenters have pointed out, a critical component in striking that balance is ensuring that broadcasters, content creators, MVPDs, and the hundreds of millions of consumers who rely on access to the content those incumbents create and distribute are *fully protected* in any plan to allow expanded

⁹ See Content Companies Comments at 1 (observing that “one of the prime motivations for consumer adoption of broadband has been consumption of highly-popular video programming”); see also NAB Comments at 8 (noting that a “5G ecosystem that is fast and innovative, *but undermines the reliable distribution of the most valuable content*, does not serve the public interest” (emphasis in original)).

¹⁰ See NAB Comments at 3 (“Viewers and listeners may have never even heard of the C-band, but they will notice if their favorite programming becomes susceptible to periodic, let alone unnecessary, outages.”).

operations in the C-band.¹¹ That necessary, maximal protection will not be achieved through the vague reassurances provided by self-interested parties that programming distribution won't be compromised too significantly. The Commission must ensure that any action taken in this proceeding includes specific, concrete, and enforceable protections for existing users of C-band spectrum, modeled after the National Association of Broadcasters' proposal, which calls for:

(1) a specific, documented, actionable, transparent, public, Commission-approved plan for accommodating existing users that incorporates input from existing C-band users and provides remedies for any incumbent user that is not fully protected or successfully relocated;

(2) the beneficiaries of any reallocation or repurposing plan to bear all of the costs incurred in any such plan's implementation, with estimated financial impacts fully documented and financial commitments secured up front in order to protect against cost overruns and/or changes in financial positions; and

(3) provision of additional capacity sufficient to allow C-band users to distribute and receive more programming as the video marketplace evolves.¹²

¹¹ See Comcast Comments at 2 (calling upon the Commission to "ensure incumbent operations are not disrupted"); Content Companies Comments at 5 (arguing that "neither the NPRM nor the CBA's commitments go far enough to ensure that video delivery and the critical role FSS spectrum plays in the video marketplace will remain fully protected"); NAB Comments at 6-8; Charter Comments at 4 (urging protection of incumbent licensees and registrants in the C-band and explaining that "any process enacted to transition any amount of spectrum, even if commercial in nature, must include appropriate FCC oversight to ensure protection of all incumbents, and must be fully funded to ensure consumers served by those incumbents are not harmed").

¹² NAB Comments at 6-8; *see also* Content Companies Comments at 4-10 (urging the Commission to adhere to the following "four core principles" in any action making C-band spectrum available for mobile use: (1) limit band-clearing to no more than 100 MHz of the lowest portion of the C-band, leaving sufficient spectrum available *exclusively* for video delivery; (2) require specific, enforceable measures to protect video delivery in the C-band—including requirements, such as a sufficient guard band and installation of filters on C-band earth stations, imposed as conditions on satellite companies' and mobile providers' licenses and

(continued . . .)

That “balanced approach”¹³ and essential outcome will depend, critically, on Commission action from the outset to develop and evaluate a complete and accurate record of existing as well as proposed new C-band operations. There must be—in *the record of this proceeding* (and not merely in discussions amongst key stakeholders)—detailed information provided by C-band satellite operators “about the technical characteristics of any new services and how [the operators] plan to sufficiently protect incumbent video distribution operations and end users’ reception of video programming.”¹⁴ Absent such a record, any spectrum-clearing plan would offer little, if any, reassurance that adequate C-band spectrum will remain available for FSS to operate as it does today.

The Commission also should evaluate with a critical eye broadband providers’ calls for clearing large swaths of spectrum to satisfy supposed demand for 5G. As the Content Companies noted, the Commission at this stage does not know with certainty “how much

(. . . continued)

enforceable commitments to reimburse existing C-band users for the substantial costs incurred as a result of repacking; (3) lift the current freeze on new C-band registrations and licenses; and (4) retain full-band, full-arc coordination in any repacked band to ensure adequate flexibility in any repacked band).

¹³ See Sens. Jerry Moran (R-KS) and Tom Udall (D-NM), Letter to Chairman Ajit Pai (Nov. 13, 2018) (supporting a “balanced approach”; urging the Commission “to consider the extensive use and significant investment already made in the 3.7-4.2 GHz band by satellite licensees and their content-providing customers, while accounting for the unique attributes of the spectrum that currently provide quality services, including to rural communities”; and calling for the Commission to “ensure that the needs of existing users and the millions of consumers who enjoy the content delivery services that rely on [the C-band] can continue to be met” coincident with any repurposing of the spectrum).

¹⁴ Comcast Comments at 3; *see id.* at 15 (contending that “the public interest demands a particularly robust record and even more rigorous evidence-based review to support any significant restructuring of the heavily-used C-Band spectrum on which more than 100 million U.S. households rely for news and entertainment programming”).

demand will exist for the initially reallocated spectrum.”¹⁵ It need not, and should not, make spectrum reallocation decisions based on guesswork. Nor should the Commission be convinced of a sense of urgency that does not square with reality. Protestations of a “crisis” on the horizon are often used to argue for regulatory change by those seeking to benefit from such change. Indeed, the Commission should not ignore lessons learned in the broadcast spectrum incentive auction, where, as NAB points out, multiple wireless providers warned so loudly and forcefully of a looming “spectrum crunch”¹⁶ that the Commission even referred to it in its public news release announcing the incentive auction back in 2012.¹⁷ As is well documented, the proponents of that “crunch” did not put their money where their mouths were: The Commission auctioned off only 70 MHz of spectrum,¹⁸ despite a clearing target of 126 MHz;¹⁹ AT&T spent less than \$1 billion; and Sprint and Verizon did not bid at all.²⁰

¹⁵ Content Companies Comments at 6.

¹⁶ NAB Comments at 8-10.

¹⁷ FCC, News Release, “FCC Launches First-in-the-World Incentive Auction to Repurpose Broadcast Television Spectrum for Mobile Broadband; Auction Set to Unleash Wave of Economic & Innovation Opportunities for U.S.” (Sept. 28, 2012), <https://www.fcc.gov/document/fcc-initiates-incentive-auction-process> (claiming that “[m]arket-based policy innovation will help alleviate growing ‘spectrum crunch’ while providing unique financial opportunities and other benefits to broadcasters”).

¹⁸ See FCC, News Release, “FCC Announces Results of World’s First Broadcast Incentive Auction: 175 TV Stations, 50 Wireless Bidders Free up 70MHz for Mobile Broadband,” (Apr. 13, 2017), <https://www.fcc.gov/document/fcc-announces-results-worlds-first-broadcast-incentive-auction-0>.

¹⁹ See “Initial Clearing Target of 126 Megahertz Set for the Broadcast Television Spectrum Incentive Auction; Bidding in the Clock Phase of the Reverse Auction (Auction 1001) Will Start on May 31, 2016,” Public Notice, GN Docket No. 12-268, DA 16-453 (Apr. 29, 2016), <https://www.fcc.gov/document/126-mhz-initial-clearing-target-reverse-clock-bidding-begins-may-31>.

²⁰ See, e.g., “T-Mobile Buys Spectrum for \$8 Billion; Verizon, Sprint Didn’t Bid,” telecomlead.com (Apr. 14, 2017), <https://www.telecomlead.com/telecom-services/t-mobile-buys-spectrum-8-bn-verizon-sprint-didnt-bid-76027>.

III. Alternative Delivery Mechanisms Are Not Appropriate Substitutes for C-band Spectrum.

The *Notice* invites comment on whether there are “alternative technologies available that could wholly or partially replace the services provided by FSS without significant disruption to existing customers.”²¹ Wireless industry commenters urge the Commission to clear vast swaths of C-band spectrum despite the importance of that spectrum to incumbent users by pointing to several such supposed alternatives.²² But none of those alternative mechanisms of transmission has proven sufficient or reliable.

Other spectrum bands cannot replace C-band spectrum for transmission of video programming. As numerous commenters have pointed out,²³ and as the *Notice* itself acknowledges,²⁴ the Ku-band lacks reliability and is subject to atmospheric rain fades. Forcing content providers and broadcasters to that or other bands would threaten Affiliates’ ability to deliver their most important video programming at times viewers need it most and when Affiliates’ service to their local communities is at its zenith—that is, in cases of breaking news, severe weather, or other emergency situations.

Nor is fiber an adequate substitute. Put simply, “the nation’s fiber footprint is insufficient to cover C-band’s nationwide reach,”²⁵ in large part because fiber is not uniformly available in rural areas of the United States. And that deficit cannot easily or inexpensively be erased: As

²¹ *Notice*, ¶ 57.

²² *See, e.g.*, Comments of T-Mobile USA, Inc., GN Docket 18-122 (Oct. 29, 2018) at 8-10.

²³ *See, e.g.*, Content Companies Comments at 3; Charter Comments at 4; *see also* NAB Comments at 5 (“Satellite services offered in other bands are either congested, subject to reliability concerns, or do not provide nationwide coverage.”).

²⁴ *Notice*, ¶ 107 & n.12.

²⁵ Content Companies Comments at 3; *see also, e.g.*, Comcast Comments at 17-19.

Comcast and NBCUniversal explain, deploying the amount of fiber necessary to cover the entire United States would be an enormous, time-consuming, and likely cost-prohibitive exercise.²⁶ Moreover, because fiber is susceptible to disruptions that C-band transmissions avoid—namely, fiber cuts resulting from severe weather or construction operations²⁷—even if it could be deployed nationwide, fiber would not be a reliable alternative to the C-band.

The other purported “alternatives” to current video delivery via the C-band are similarly flawed. For example, the *Notice* questions whether the FCC could facilitate band-clearing through the use of “greater compression to reduce the capacity required to carry a given amount of programming or data[.]”²⁸ On this point too, the Affiliates Associations agree with the Content Companies, who argue that enhanced video compression is an “unworkable solution, as it risks undermining the quality of video content” and hamstringing the expansion of 4K and ultra HD video programming.²⁹ Further, the “compression” proposal is one of several technology-based “alternatives” to C-band spectrum that would require significant equipment changes at *every receive site*, impacting large and small entities (including Affiliate stations) alike, with the latter likely bearing a disproportionate cost burden.

Given the advances in video technology—the advent of ATSC 3.0 is only one example—and ever-increasing consumer demand for more, better, and clearer video programming, the need for C-band capacity stands only to increase. The Commission should take care in this

²⁶ Comcast Comments at 18; *see also, e.g.*, Charter Comments at 4 (explaining that fiber delivery is “vastly more expensive” than earth station delivery “due to the need for multiple paths of redundancy, and the greatly increased expenses for installation and maintenance”); NAB Comments at 5.

²⁷ *See* Content Companies Comments at 3 & n.6; NAB Comments at 5.

²⁸ *Notice*, ¶ 106.

²⁹ Content Companies Comments at 4.

proceeding not to constrain present or future use of that spectrum by the distributors and content providers who rely heavily upon the C-band to bring valuable and important video programming to consumers.³⁰

Conclusion

For the foregoing reasons, the Affiliates Associations respectfully urge the Commission to ensure that any plan for reallocation of C-band spectrum includes full, concrete, and enforceable protections for the existing, essential video programming distribution pipeline.

Respectfully submitted,

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³⁰ Comcast Comments at 70.