

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

In the Matter of	)	
	)	
Expanding Flexible Use of the 3.7 to 4.2 GHz Band	)	GN Docket No. 18-122
	)	
Expanding Flexible Use in Mid-Band Spectrum	)	GN Docket No. 17-183
Between 3.7 and 24 GHz	)	(Inquiry Terminated as to 3.7-4.2 GHz)
	)	
Petition for Rulemaking to Amend and Modernize	)	RM-11791
Parts 25 and 101 of the Commission's Rules to	)	
Authorize and Facilitate the Deployment of	)	
Licensed Point-to-Multipoint Fixed Wireless	)	
Broadband Service in the 3.7-4.2 GHz Band	)	
	)	
Fixed Wireless Communications Coalition, Inc.,	)	RM-11778
Request for Modified Coordination Procedures in	)	
Band Shared Between the Fixed Service and the	)	
Fixed Satellite Service	)	

**COMMENTS OF LUKEN COMMUNICATIONS, LLC**

Luken Communications, LLC, on behalf of itself and its subsidiaries Retro Television, Inc., The Heartland Network, LLC, The Action Channel, LLC, Rev'n, LLC, and The Family Channel, LLC (collectively, "Luken") submits these comments in response to the above-captioned Notice of Proposed Rulemaking ("NPRM") in which the Federal Communications Commission solicits feedback on proposals to permit terrestrial mobile use of the 3700-4200 MHz band (the "C-band").<sup>1</sup> Luken has three primary goals in submitting these comments: (1) make perfectly clear that the C-band content distribution services provided by satellite operators are essential to our business; (2) support the market-based approach of Intelsat License LLC, SES Americom, Inc., and Intel Corporation proposed in the NPRM to allow terrestrial mobile

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<sup>1</sup> *Expanding Flexible Use of the 3.7-4.2 GHz Band*, Order and Notice of Proposed Rulemaking, GN Docket No. 18-122, FCC 18-91 (rel. July 13, 2018).

use of the C-band;<sup>2</sup> and (3) oppose new fixed point-to-multipoint (“P2MP”) services in the C-band and associated proposed limits on full-band, full-arc protection for satellite earth stations.

Luken provides five (5) full-time, fully programmed television networks to broadcasters throughout the United States and its territories. These networks are provided free-of-charge to more than three hundred (300) broadcasters from coast-to-coast and Puerto Rico. Our programming is distributed to our affiliates by satellite using a full 36 MHz C-band transponder which allows us to provide east and west coast time-delayed national feeds of each network, plus custom channel feeds for certain markets and customers. In addition, Luken relies heavily on C-band to receive recorded programming, commercial advertisements, live programming and other networks from third party providers which we then broadcast to our hundreds of affiliates.

Thus, the C-band forms the backbone of the infrastructure content companies use to supply consumers across the country with premium television programming. Any change in the current C-band operating environment could negatively affect Luken’s business<sup>3</sup> and the American consumers we serve. Luken’s ability to provide programming to broadcast stations and to free-to-home viewers is predicated on reliable and cost effective delivery made possible on C-band satellite spectrum.

C-band offers reliability, quality, and cost efficiency that cannot be matched by other technologies or in other satellite spectrum. Just as Luken’s programming is broadcast over-the-air to millions of potential viewers by VHF and UHF affiliated stations, Luken’s programming reaches potentially all of the broadcast stations in the country utilizing a one-to-many method only possible through satellite delivery. The quality of the services Luken provides is not currently impacted by the number of stations or free-to-home viewers that receive its signal.

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<sup>2</sup> See NPRM ¶¶ 66-97.

<sup>3</sup> Indeed, our industry has made substantial investments in C-band facilities to expand and update our distribution networks to ensure that all Americans have access to high quality content.

Alternative transport technologies utilizing fiber or broadband IP-based solutions are not feasible based on Luken's size and scale. Further, availability of such services on the receiving end is in many cases not possible. Luken largely relies on independent broadcasters, many of which have their own economic restraints, to distribute its programming. Absent Luken's free programming which is received by C-band free of charge to an affiliate, many of Luken's affiliates would not be able to continue operating and providing free, valuable services to the public in each affiliate's community. Additionally, a large community of free-to-home viewers receives programming by C-band. Many of these viewers live in areas underserved by broadband internet service or where terrestrial broadcast signals are limited or non-existent. Programming available on C-band, at no cost to the viewer, provides a valuable public service. Clearly, the provision of Luken's programming and other programming through C-band has significant public interest benefits.

One might argue that Ku-band satellite service would not be affected by the potential terrestrial use contemplated in the above captioned matters, and therefore would be a suitable replacement for C-band spectrum. Luken has previously used Ku-band segments to distribute some of its networks' programming; however, reception reliability was a continuous issue. Rain fade and weather related attenuation, common within the Ku-band, caused frequent outages which interrupted viewers' enjoyment of Luken's programming prompting telephone calls and online complaints to Luken and its affiliates. Additionally, Ku-band segments providing the same capacity for all of Luken's channels are limited in availability and are cost prohibitive. Switching away from C-band satellites would also strand the investment Luken and its affiliates have made in the ground stations used for content distribution.

Moreover, the record suggests that co-frequency sharing between terrestrial mobile services and satellite operations is not feasible. As the NPRM recognizes, because signals from satellites are very weak when they reach the ground, terrestrial mobile operations could cause harmful interference to earth stations over large distances.<sup>4</sup> Any risk of interference to the C-band satellite services on which Luken relies is unacceptable, not only from a business revenue perspective, but because it jeopardizes the ability of American consumers to receive the programming content they want and upon which they rely.

The proper management of the future of the C-band is critical to the continued vitality of Luken's business. Thus, we believe that a market-based approach, led by satellite operators, is the only practical solution for introducing terrestrial mobile operations in the C-band. Cable systems, broadcasters and content delivery companies have been working with satellite operators for decades. We are their customers, and they understand our needs and have direct knowledge of our operations. Consequently, satellite operators are best positioned to protect our company and other incumbent users while also undertaking the arduous and costly task of clearing spectrum for terrestrial mobile use. We urge the Commission to move forward with the market-based solution discussed in the NPRM.<sup>5</sup>

Finally, the Commission should not allow new P2MP services in the C-band or restrict the protection of C-band earth stations across the full spectrum band and the visible satellite arc.<sup>6</sup> The flexibility to change frequencies and receive antenna orientations is essential to the value of the C-band satellite capacity on which Luken and others rely. This flexibility allows restoration of service if an outage affects our primary space segment and facilitates the resolution of interference issues, as well as enabling us to take advantage of competition among satellite

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<sup>4</sup> See NPRM ¶ 50.

<sup>5</sup> See NPRM ¶¶ 66-97.

<sup>6</sup> See NPRM ¶¶ 37-40 & 116-132.

operators. The requirement to work around new P2MP facilities would undermine the nationwide reach of C-band service, and the requirement to modify earth station licenses for any change in operating parameters would impose significant and unjustified regulatory burdens.

Specifically, two issues relative to P2MP would affect Luken and its affiliates. First, on June 17, 2017, Luken's programming transmission abruptly ceased as a result of the unforeseen failure of the AMC-9 satellite. This failure required all Luken related earth stations to re-orient to alternate positions and frequencies. The transition to the new satellite coordinates by Luken was able to be performed in less than 12 hours, however, in some cases it took more than a week for some of Luken's three hundred affiliates to make the necessary changes. Had P2MP coordination been required, it is likely that Luken and its affiliates would have sustained substantial losses of revenue and viewership. Second, P2MP services would likely impact and limit future growth of Luken. Specifically, potential affiliates of Luken may be unable to suitably receive Luken's C-band satellite signal due to terrestrial interference or be dissuaded from affiliating with Luken due to undue and burdensome regulatory issues and coordination efforts with new P2MP services operating in the C-band spectrum.

The contemplated P2MP use of the C-band spectrum would likely damage Luken's ability to continue providing free and valuable programming services to independent television broadcasters and the American television viewer and consumer. Therefore, Luken urges the Commission to focus on other spectrum that is not as intensely used as the C-band to meet any requirements for additional frequencies suitable for P2MP operations.

Respectfully submitted,

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