

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions	)	GN Docket No. 12-268
	)	
	)	
Policies Regarding Mobile Spectrum Holdings	)	WT Docket No. 12-269
	)	
Competitive Bidding Procedures for Broadcast Incentive Auction 1000, Including Auction 1001 And 1002	)	AU Docket No. 14-252
	)	
	)	
Amendment of Parts 15, 73 and 74 of the Commission's Rules to Provide for the Preservation of One Vacant Channel in the UHF Television Band For Use By White Spaces Devices and Wireless Microphones	)	MB Docket No. 15-146
	)	

**COMMENTS OF THE  
NATIONAL ASSOCIATION OF BROADCASTERS**

September 30, 2015

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## SUMMARY

The Commission's proposal to remove one or more television channels from free over-the-air television service in favor of unlicensed services is unwise, unsound and, if adopted, will upend decades of Congressional and Commission policy. This proposal is based on a number of false premises and assumptions, the most notable of which is that white spaces devices will have access to less spectrum following the incentive auction. This claim is simply not correct; in many of the most congested markets in the country, unlicensed users will have access to *more* spectrum than they do currently. Far from a spectrum shortfall, the Commission has already ensured that, following the auction, users in congested markets will have access to white spaces channels for the first time. These are the markets, if any, that would provide a different business case for white spaces services which, to date, have failed to yield meaningful consumer benefits.

Meanwhile, the Commission's proposal will produce at least three significant harms to the broadcast TV industry and their viewers. First, in the context of an auction that is already certain to severely damage our nation's low power and TV translator services, the proposal will force hundreds of additional low power television and translator stations off the air. Second, the channel appropriation will significantly restrict broadcaster efforts to innovate themselves in their own band. The proposal would limit broadcasters' ability to develop new standards or transition to them to the benefit of consumers, all in the name of protecting white spaces services that have yet to materialize in the decades since their inception. Third, by removing channels from the TV band for television use, the Commission will be nailing shut the door for potential increased diversity in media ownership. By reserving remaining TV channels for the tech industry (one of the least diverse industries in the nation), the FCC would foreclose opportunities for new entrants, whether low or full power operators, to further

diversify the broadcasting industry. The Commission should not move forward with this proposal.

Let us be crystal clear: NAB unequivocally supports vibrant unlicensed services. We firmly believe that there is a critical place in the wireless ecosystem for unlicensed allocations. What we oppose, however, is elevating unlicensed services over licensed ones, especially when all evidence suggests that unlicensed use of white spaces has yielded almost nothing tangible for consumers. For the FCC to take as radical a step as removing, for the first time, channels from broadcast TV use to provide more white space spectrum to companies that have generated nothing for the American consumer would be arbitrary and capricious.

The Commission appears to be under the misperception that there will be no victims associated with its actions, in particular that, “the impact on broadcast applicants...will be limited.” That attitude belies a larger theme of degrading our nation’s broadcast service to the benefit of other, more concentrated and well-heeled industries. The victim here is the consumer, plain and simple. The FCC has done nothing to quantify what benefits would be realized by reserving one or two channels for unlicensed use in the TV bands. But it can easily quantify – as NAB does below – how many translators and LPTV stations are likely to be eliminated, thereby cutting off consumers – especially those who are most vulnerable – from local service. Consumers also lose because the FCC will be freezing broadcaster innovation in time and not allowing potential sea change technological advantages to be realized over time. And consumers lose because any diversity towards which the Commission claims to be working will be foreclosed, as the incentive auction will wipe out a good piece of existing diversity and the reserved channel proposal will ensure that the door is shut on women and minorities interested in joining the broadcast business.

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The National Association of Broadcasters (NAB)<sup>1</sup> submits these comments in response to the Notice of Proposed Rulemaking released in the above-referenced proceedings,<sup>2</sup> as modified by the Commission's Incentive Auction Procedures Public Notice.<sup>3</sup> The proposal to

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<sup>1</sup> The National Association of Broadcasters is a nonprofit trade association that advocates on behalf of free local radio and television stations and broadcast networks before Congress, the Federal Communications Commission and other federal agencies, and the courts.

<sup>2</sup> *Amendment of Parts 15, 73 and 74 of the Commission's Rules to Provide for the Preservation of One Vacant Channel in the UHF Television Band For Use By White Space Devices and Wireless Microphones, Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Notice of Proposed Rulemaking, MB Docket No. 15-146, GN Docket No. 12-268, FCC 15-68 (June 16, 2015) (NPRM).

<sup>3</sup> *Broadcast Incentive Auction Scheduled to Begin on March 29, 2016*, Public Notice, AU Docket No. 14-252, GN Docket No. 12-268, WT Docket No. 12-269, MB Docket No. 15-146, FCC 15-78 (Aug. 11, 2015) (Procedures PN).

reallocate spectrum in the television band for use by unlicensed operators would reverse the Commission's long-established rules for unlicensed operations, and is based on the demonstrably false premise that white spaces users will have access to less spectrum following the incentive auction. In fact, in many congested markets, unlicensed users will have access to *more* white spaces after the auction than they do today.

By reallocating spectrum for unlicensed operations, the Commission would severely constrain the ability of displaced low power stations to find replacement channels after the auction. This will be devastating for low power and translator stations, which already face a severe spectrum shortage following the auction. The result will be significant additional loss of service for viewers that rely on translators or LPTV stations. Extending this proposal to full power stations is an even more radical step. It would freeze full power stations in place and hamstring their ability to expand or innovate to better serve their viewers. The Commission's proposal would also curtail the ability of new entrants to join the broadcasting industry, limiting the potential for further diversity in the industry.

Troublingly, the Commission does not acknowledge the harms associated with its proposal. Instead, the NPRM simply asserts that there should be a large number of vacant channels available for displaced LPTV and translator stations, so the impact should be minimal. Of course, if this were true, there would be no reason for the Commission to propose reserving a channel for unlicensed – there would be plenty of channels available for everyone.

In short, the Commission's proposal would cause real, tangible harm in the near term, yet would produce benefits that are speculative at best. For these reasons, the Commission should not adopt its initial proposal.

**I. THE COMMISSION'S PROPOSED SPECTRUM GIVEAWAY IS UNLAWFUL**

**A. The Commission's Proposal Reverses Previous Decisions Without Adequate Explanation or a Sufficient Record**

Broadcasters support unlicensed operation in TV white spaces, as long as such operation avoids causing harmful interference to licensed services. That condition, that unlicensed operation must not cause interference to licensed services, is fundamental to the TV white spaces rules and, indeed, the Commission's framework for unlicensed operation more generally. The purpose of the white spaces rules is to allow opportunistic use of spectrum that would otherwise lie fallow – not to provide a new allocation at the direct expense of licensed television stations actively serving viewers.

These rules are based on the Commission's general framework for unlicensed operations. The cornerstones of Part 15 of the FCC's rules, under which white spaces devices operate, are that unlicensed operations have no recognizable right to continue to operate on any particular frequency, that they must not cause harmful interference to any authorized service, and that they must accept harmful interference caused by any authorized service.<sup>4</sup> Unlicensed services have no status, no right to cause interference, and no protections against interference. TV white spaces devices, therefore, must work around all existing licensed operations in the television band, including full power, low power and translator stations. LPTV and translator stations, while "secondary" to full power stations, are absolutely not secondary to unlicensed services under the Commission's rules. Indeed, when the Commission first proposed to allow unlicensed operation in the television bands, it expressly stated that the

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<sup>4</sup> 47 C.F.R. § 15.5(a)-(b).

unlicensed uses it proposed were “not intended to limit future licensed use or to guarantee spectrum access rights for this band.”<sup>5</sup>

The Commission has consistently upheld this view. According to the Commission, “It is, of course, most important that we ensure that new unlicensed devices do not interfere with the incumbent licensed services in the TV bands.”<sup>6</sup> In particular, the Commission has noted that, “future broadcast uses of the television band will have the right to interference protection from TV band devices.”<sup>7</sup> The Commission has rejected efforts to limit expanded licensed operations to provide more opportunities for unlicensed operations in the television band, concluding that the “TV services for which this spectrum is allocated on primary and secondary bases are important media for the provision of news, information, and entertainment that warrant priority over those unlicensed broadband devices.”<sup>8</sup>

Now, the Commission proposes to turn all of this on its head. Rather than permitting opportunistic operation on unused channels, the Commission would be reserving channels solely for unlicensed operation and making that spectrum off limits to the licensed services that are authorized to operate in the band. This is a comprehensive restructuring of the white spaces rules that would provide white spaces with rights and protections unlike any other unlicensed service.

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<sup>5</sup> *Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, Notice of Inquiry, 17 FCC Rcd 25632, ¶ 14 (2002).

<sup>6</sup> *Unlicensed Operation in the TV Broadcast Bands*, Second Report and Order and Memorandum Opinion and Order, 23 FCC Rcd 16807, ¶ 33 (2010) (TVWS Second Report and Order).

<sup>7</sup> *Id.* at ¶ 50.

<sup>8</sup> *Digital Television Distributed Transmission System Technologies*, Report and Order, 23 FCC Rcd 16731, ¶ 19 (2008).



1. The Notices Confuses the Facts

When an agency completely reverses course in such a manner, it is “obligated to supply a reasoned analysis for the change.”<sup>9</sup> Failure to provide such a reasoned analysis is arbitrary and capricious, and constitutes grounds for reversal. Yet, here, the Commission offers only a limited explanation for its dramatic about face. It claims the change is necessary because there will be fewer vacant channels available after the auction and the public should not lose the benefits of white space devices.<sup>10</sup> This premise is untrue.

While there will be fewer unused channels in the television band following the auction, this does not mean there will be less spectrum available for unlicensed operation in all areas. In fact, in many key areas, there will be *more* spectrum available for unlicensed operations. In some of the most congested markets in the nation, such as Los Angeles and New York, there are currently no channels at all available for white space operations. After the auction, white spaces devices will have access to multiple channels in these markets for the first time, including spectrum in the guard bands, in the duplex gap and on channel 37.<sup>11</sup> Further, the Commission recently authorized white space operations on TV channels 3 and 4. Thus, while there are currently *no* channels available for white space operation in New York and Los Angeles, after the auction there will be at least three such channels: (1) channel 37; (2) in the duplex gap and/or guard bands; and (3) on channel 3 or 4.

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<sup>9</sup> *Motor Vehicle Mfrs. Ass’n of the U.S. v. State Farm Mutual Automobile Ins. Co.*, 463 U.S. 29, 41 (1983).

<sup>10</sup> NPRM at ¶ 19.

<sup>11</sup> *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd 6567, ¶ 258 (2014).

Elsewhere, white spaces users may continue to operate on vacated television channels following the auction until wireless carriers are actually prepared to commence operations. Given the deliberate rollout of 700 MHz deployment in some parts of the country, wide swaths of channels could remain available to white space users, though unavailable for television service, for years. The Commission simply cannot claim a shortage in spectrum for unlicensed use warrants changing the rules while it is significantly *expanding* the spectrum available for such operations.

2. Experience With White Spaces Technology Does Not Warrant Displacement of Existing Services

Even in those parts of the country where fewer channels will be available for unlicensed use, this merely begs the question of how the Commission should determine how the remaining channels are allocated. In weighing its decision to reallocate television spectrum for unlicensed use, the Commission must weigh the benefits of lost translator and LPTV station service and constrained full power station service against the speculative benefits of additional spectrum for white spaces devices.

The Commission should start by considering what its proposal would actually permit. The NPRM proposes to require stations to demonstrate that their proposed new or modified facilities will not eliminate the last remaining available channel for white spaces operation. The Commission will consider a channel available if it can accommodate a 40 milliwatt personal/portable device.<sup>12</sup> Yet, the Commission has not authorized a single 40 milliwatt personal/portable device. As a result, the Commission's is proposing to require broadcasters to protect the potential use of a device that does not yet exist.

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<sup>12</sup> NPRM at ¶ 37.

Even if these devices did exist, with low power and limited range, they would provide no benefit operating in isolation on a channel that may not be available elsewhere in the market. With limited range and without a higher-powered base station on the same channel to communicate with the device, *this proposal is aimed at toys*, not, for example, broadband internet service using white spaces. Is the Commission truly prepared to disenfranchise viewers in a community not served by cable, and unable to afford expensive satellite service for this?

Indeed, the Commission's proposal does not even come close to providing the kind of spectrum white space advocates have been seeking.<sup>13</sup> White spaces proponents have asked for as many contiguous white space channels as possible to facilitate white spaces use for rural broadband service.<sup>14</sup> Instead, the Commission is proposing a patchwork quilt of spectrum availability that could devastate translator and low power service while providing no market-wide additional spectrum for white spaces.

Finally, while we remain supportive of white spaces for unlicensed operations, the simple fact is that progress has been considerably slower than promised. When the Commission originally adopted white space rules, advocates for such rules promised exciting and innovative uses, including ubiquitous high speed internet service.<sup>15</sup> To date, these services have not come close to materializing, and it is not too early to wonder if they ever will. Three years after initial delivery of the Tesla Model S, Tesla had sold 50,000 units in the

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<sup>13</sup> Although undoubtedly these advocates will take what they can get as a "bird in the hand."

<sup>14</sup> See, e.g., Comments of Open Technology Institute at New American Foundation and Public Knowledge, 2, GN Docket No. 12-268, ET Docket No. 14-165 (Feb. 4, 2015).

<sup>15</sup> Anne Broache, "Google outlines proposal for 'Wi-Fi on steroids'" (April 28, 2008) ("Google on Monday said it has a plan to have American consumers from Manhattan to rural North Dakota surfing the Web on handheld gadgets at gigabits-per-second speeds by the 2009 holiday season.") available at: <http://www.cnet.com/news/google-outlines-proposal-for-wi-fi-on-steroids/>.

United States alone.<sup>16</sup> Five years after the introduction of the iPhone, Apple had sold 217 million of the devices.<sup>17</sup> Five years after the finalization of the current white spaces rules, there are no more than 600 TV white spaces devices operating in the United States.<sup>18</sup> That's right, 600 total.

This is not a success story, and it is baffling why the Commission continues to double down on longshot spectrum policy. White spaces may yet offer the potential for innovation, but that potential is far from certain and it is wholly speculative to assume there will be any tangible benefits from the Commission's proposal in the near, medium or long terms.

In short, based on experience to date, there is no reason for the Commission to reverse course and abandon its commitment to protect licensed television services from unlicensed operation in the television bands. Absent a sound record and a reasoned explanation for comprehensively restructuring its rules, the Commission cannot legally or responsibly adopt its proposal. Rather, the Commission should maintain its existing rules, which prioritize the protection of licensed services over unlicensed operations.

**B. The Spectrum Act Does Not Contemplate or Authorize the Displacement of Broadcast Services for Unlicensed Services**

The Spectrum Act authorizes the Commission to conduct a voluntary incentive auction and repacking of the broadcast television band to allow the Commission to auction spectrum for mobile broadband services.<sup>19</sup> It also allows the Commission to permit unlicensed

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<sup>16</sup> Jeff Cobb, "Tesla Model S Crosses 50,000 U.S. Sales Milestone" (July 6, 2015) available at: <http://www.hybridcars.com/tesla-model-s-crosses-50000-u-s-sales-milestone/>.

<sup>17</sup> Heather Kelly, "5 ways the iPhone changed our lives" (June 30, 2012) available at <http://www.cnn.com/2012/06/28/tech/mobile/iphone-5-years-anniversary/>.

<sup>18</sup> As of September 30, 2015, the Google Spectrum Database shows 599 registered devices: <https://www.google.com/get/spectrumdatabase/data/>.

<sup>19</sup> Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. 112-96, 126 Stat. 156, 201, §§ 6402-6403 (Feb. 22, 2012) (Spectrum Act).

operation in guard bands that are no larger than technically reasonable to prevent harmful interference.<sup>20</sup> Nothing in the Spectrum Act, however, authorizes the Commission to displace hundreds of LPTV and translator stations solely to provide additional spectrum for unlicensed operations outside of the guard bands, or even contemplates such a move.

Specifically, the Spectrum Act expressly provides:

(5) LOW-POWER TELEVISION USAGE RIGHTS.—Nothing in this subsection shall be construed to alter the spectrum usage rights of low-power television stations.<sup>21</sup>

The Commission's proposal to reallocate television channels for unlicensed use will severely constrain the rights of LPTV and translator stations. Right now, under the FCC's existing rules, a displaced translator or LPTV station could inarguably apply to the Commission for authority to operate on an available, unused channel in the broadcast television band. If the Commission proceeds to change the rules for these stations solely to accommodate additional unlicensed use following the auction, this may no longer be the case.

The Commission acknowledges that the Spectrum Act expressly preserves the rights of LPTV and translator stations, cites the provision of the Spectrum Act preserving the FCC's authority to implement its white spaces Second Report and Order.<sup>22</sup> This provision is unavailing, however, as the order to which the Spectrum Act refers reflects the Commission's traditional priority of licensed over unlicensed services. The very order Congress cites plainly states that "future broadcast users of the television band will have the right to interference protection from TV band devices."<sup>23</sup> It strains credulity to claim that Congress's citation of an

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<sup>20</sup> *Id.* at § 6407.

<sup>21</sup> *Id.* at § 6403(b)(5).

<sup>22</sup> NPRM at ¶ 18, citing Spectrum Act at § 6403(i)(2).

<sup>23</sup> TVWS Second Report and Order at ¶ 50.

order that expressly preserves priority of licensed television services over unlicensed white spaces users somehow authorizes the Commission to reverse that priority and shove aside translators and LPTV stations providing service to hundreds of thousands of viewers. Perhaps this is why members of Congress themselves have cautioned the Commission that the Spectrum Act does not provide the FCC “carte blanche to upend the maxim that colors all FCC licensing: licensed services take precedence over unlicensed services,” and that it does not “allow the FCC to elevate unlicensed operations over translators and low power stations in the television band and to unnecessarily deprive [viewers] of their local programming.”<sup>24</sup>

## **II. THE COMMISSION’S PROPOSAL WILL HAVE SEVERE CONSEQUENCES**

### **A. The Effects on Low Power and Translator Facilities Will Be Widespread**

The Commission baldly claims that its proposal will have a minimal impact on LPTV and translator stations. This assertion is simply false. In fact, the proposal will have a devastating impact on LPTV and translator stations, and the viewers who rely on these stations to receive over-the-air signals. It will result in *hundreds* of low power facilities being forced off the air.

The *only* support the Commission offers for its claim that the harm to LPTV stations and translators will be minimal is to assert that there will still be *some* channels available for these stations. According to the Commission, “the impact on broadcast applicants, including LPTV and TV translator stations, in terms of the availability of channels for future use, will be limited because multiple vacant channels will still exist in all or most markets as a

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<sup>24</sup> Letter from Greg Walden, Chairman, Subcommittee on Communications and Technology and Joe Barton, Chairman Emeritus, House Committee on Energy and Commerce, to Chairman Tom Wheeler (Aug. 4, 2015), available at: <http://www.scribd.com/doc/273547702/House-Commerce-20150804-Fcc>.

consequence of the need to avoid interference between primary broadcast stations.”<sup>25</sup> The Commission explains that, in simulation results staff previously released, areas including the vast majority of the country will have at least two vacant channels available following the auction.<sup>26</sup>

The Commission does not explain whether or how it conducted any meaningful analysis on the effects its proposal would have on LPTV and translator facilities. In fact, absent any analysis of whether displaced LPTV and translator stations can successfully find new channels, the Commission’s claim that there will be “multiple vacant channels” after the auction is hollow. Claiming there will still be *some* available channels entirely avoids the only pertinent question, which is whether there will be *enough* available channels available to accommodate displaced television stations providing valuable services to viewers today. As much as it might wish to do so, the Commission cannot merely assume away the harm associated with making television spectrum off limits for television.

NAB has conducted a preliminary analysis suggesting both that a large number of low power and translator stations will be displaced through repacking, and that reserving an additional channel for unlicensed will make this problem significantly worse. We conducted this analysis for both an 84 MHz clearing target and a 120 MHz clearing target. The results are presented below. There are reasons to believe that the results are conservative, and the actual number of LPTV and TV translator stations affected could be significantly higher.

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<sup>25</sup> NPRM at ¶ 11.

<sup>26</sup> *Id.*

State	LPTV and TV Translators Stations Off Air in 84 MHz Band Plan	Additional TV Translators and LPTV Stations Off Air With Additional Reserved Channel
Alabama	0	3
Arkansas	0	2
Arizona	11	8
California	38	32
Colorado	82	26
Connecticut	0	0
Washington, DC	0	2
Delaware	0	0
Florida	0	15
Georgia	0	11
Iowa	0	2
Idaho	26	13
Illinois	0	5
Indiana	0	4
Kansas	0	3
Kentucky	0	1
Louisiana	0	4
Massachusetts	0	2
Maryland	1	2
Maine	0	3
Michigan	1	4
Minnesota	12	15
Missouri	0	7
Mississippi	0	5
Montana	7	34
North Carolina	5	5
North Dakota	0	8
Nebraska	0	7
New Hampshire	0	0
New Jersey	1	0
New Mexico	2	21
Nevada	21	22
New York	2	10
Ohio	0	6
Oklahoma	0	10
Oregon	36	15
Pennsylvania	2	1
Rhode Island	0	0
South Carolina	0	3
South Dakota	0	4
Tennessee	0	7
Texas	1	37
Utah	>250	25
Vermont	0	2
Virginia	0	4
Washington	8	9
Wisconsin	0	4
West Virginia	0	2
Wyoming	3	14
<b>TOTALS</b>	<b>&gt;509</b>	<b>347</b>



State	LPTV and TV Translators Stations Off Air in 120 MHz Band Plan	Additional TV Translators and LPTV Stations Off Air With Additional Reserved Channel
Alabama	1	3
Arkansas	0	2
Arizona	27	10
California	79	37
Colorado	124	27
Connecticut	0	0
Washington, DC	0	2
Delaware	1	0
Florida	1	11
Georgia	0	10
Iowa	0	3
Idaho	35	13
Illinois	0	5
Indiana	0	4
Kansas	0	3
Kentucky	0	1
Louisiana	0	4
Massachusetts	0	2
Maryland	2	2
Maine	1	3
Michigan	1	4
Minnesota	23	15
Missouri	2	7
Mississippi	0	6
Montana	24	34
North Carolina	12	7
North Dakota	0	7
Nebraska	0	7
New Hampshire	1	0
New Jersey	2	0
New Mexico	7	20
Nevada	42	24
New York	8	14
Ohio	0	7
Oklahoma	6	11
Oregon	65	15
Pennsylvania	3	1
Rhode Island	0	0
South Carolina	0	4
South Dakota	0	5
Tennessee	0	7
Texas	18	33
Utah	>300	25
Vermont	0	2
Virginia	0	4
Washington	17	9
Wisconsin	0	5
West Virginia	0	3
Wyoming	10	15
<b>TOTALS</b>	<b>&gt;688</b>	<b>433</b>

These results should not be surprising. Indeed, the Commission's proposal in some ways necessarily contradicts the reassurance it seeks to offer. If a market has plenty of channels to accommodate everyone, there is no need to reserve a channel for unlicensed, as there will be plenty of white spaces still available. The *only* reason to propose to reserve a channel for unlicensed services is a concern that there will, in fact, be a limited number of available channels in some markets. Given that scarcity, reserving television channels for unlicensed services will result in a loss of broadcast service.

This problem will only be made worse by the Commission's latest proposal, remarkably to reserve a *second* channel for unlicensed operations in those markets where the FCC assigns repacked television stations to the duplex gap – thus eliminating use of the gap by unlicensed users.<sup>27</sup> The Commission's refusal to preserve the duplex gap for use by unlicensed services and wireless microphones not only deprives broadcasters of spectrum they use to cover breaking news and emergencies, it will harm broadcasters in yet another fashion. This modification, which is necessary solely to solve a problem entirely of the Commission's own making, will only exacerbate service losses in markets where a second channel is reserved for unlicensed use. Indeed, because the Commission has proved flatly unwilling to commit to any limitation on its ability to assign stations to the duplex gap, it is wholly unclear how widespread the consequences of this proposal will prove to be.

**B. Low Power Television Stations and Television Translators Provide Valuable Services**

If translators and low power stations are unable to find replacement channels following the auction, viewers will inevitably lose service on which they currently rely. In many states,

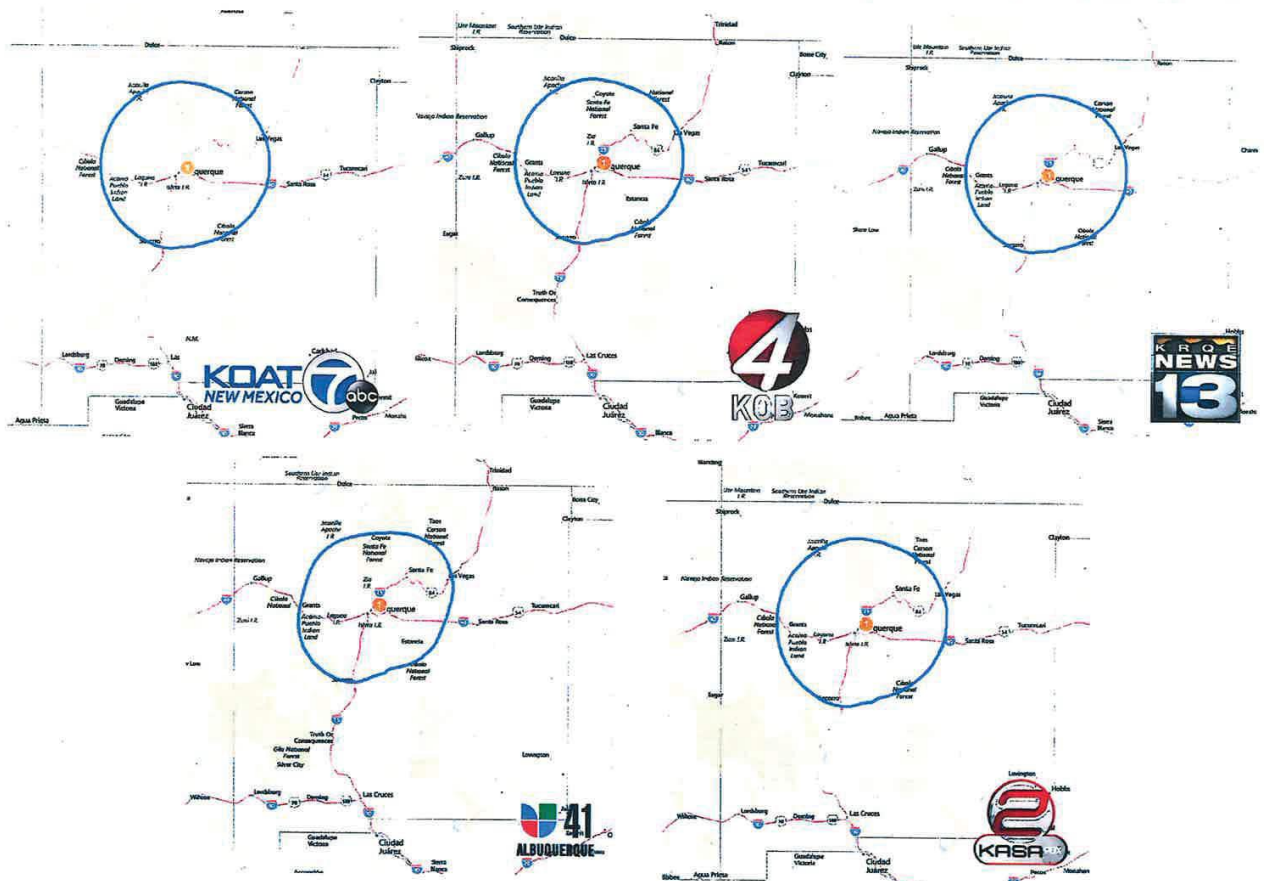
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<sup>27</sup> Procedures PN at ¶ 32.

particularly large Western states, simple geography makes it impossible for a broadcast station to cover its entire market with only the main station signal.

The record of this proceeding amply demonstrates the critical role translators play in providing free over-the-air service to viewers. For example, the diagrams below show the coverage of five full power stations in New Mexico – each of which covers less than roughly a third of the state. Viewers outside of this coverage area rely on television translators for over-the-air service.

# NEW MEXICO TELEVISION COVERAGE



Approximately 50 percent of New Mexico’s public television viewers are reached by 31 translators, including significant tribal viewership.<sup>28</sup> NAB’s analysis suggests that, at an 84 MHz clearing target, preserving a channel in the television band for unlicensed use will result in approximately 20 translator or low power facilities being forced off the air. This could deal a crippling blow to over-the-air service in the state, leaving many viewers without service. Yet, years after the adoption of the current white spaces rules, there is not a single white spaces device – *not one* – currently operating in the entire state of New Mexico, despite the availability of channels for such operation.

KNPB, a public broadcaster in Reno, Nevada, uses 28 translators to reach approximately 423,000 of its 845,000 viewers, including 27 tribal communities with 32,400 residents.<sup>29</sup> Depending on the level of spectrum recovery in the auction, Nevada will lose approximately 20-40 LPTVs or translators. Reserving a television channel for unlicensed will result in more than 20 additional translators or LPTV stations going off the air in Nevada. Yet, as in New Mexico, despite the availability of channels for white spaces devices, there is not a single device operating in Nevada.

Idaho Public Television relies on 43 translators to serve viewers across the state,<sup>30</sup> yet the Commission’s proposal may force 13 LPTV or translator stations off the air. In Wyoming translators provide service to 69 percent of the coverage area served by public television stations.<sup>31</sup> The Commission’s proposal to reserve a channel for unlicensed could result in 14-

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<sup>28</sup> Letter from Jack Gibson to Julie Knapp, GN Docket No. 12-268 (July 31, 2013).

<sup>29</sup> Comments of Channel 5 Public Broadcasting, Inc., MB Docket No. 03-185, GN Docket No. 12-268, ET Docket No. 14-175 (Jan. 12, 2015).

<sup>30</sup> Comments of the Association of Public Television Stations, Corporation for Public Broadcasting, and Public Broadcasting Service at 10, GN Docket No. 12-268 (Jan. 25, 2013).

<sup>31</sup> *Id.* at 11.

15 translator or LPTV stations going off the air in Wyoming. There are currently *three* white spaces devices registered in Idaho, despite the wide availability of channels, and not a single device registered in Wyoming.

Of course, the effects go beyond the raw numbers of translators that are displaced. In many states, stations provide service to distant communities using networks or daisy chains of translators. Eliminating one or more translators in the chain may knock out service for the rest of the chain even if channels remain available in areas served by the end of a chain.

Nor is this solely a Western state issue. Low power and translator stations provide vital services to their communities in other parts of the country as well. In many cases, they provide niche or foreign language programming that would not otherwise be available. For example, in South Carolina, W28DB-D is a low power facility providing Hispanic religious programming – the only such programming available in the state. If this station is unable to find a new channel after the auction, there will be no way to replace this programming. Again, there is not a single white spaces device – not one – registered to operate in South Carolina.

It is no answer to suggest that low power facilities may engage in channel sharing. The reality is that many LPTV and translator facilities currently multicast multiple programming streams. If more stations are forced to channel share as their only option for staying on the air there are only two possibilities: (1) viewers will lose programming; or (2) viewers will receive a lower-quality, non-HD signal. Either of these options reflects a loss of service.

The Commission should not content itself with generalities about the impact of the auction on LPTV and translator stations. It is simply not good enough to claim that “multiple vacant channels will still exist in all or most markets,”<sup>32</sup> particularly in light of NAB’s analysis.

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<sup>32</sup> NPRM at ¶ 11.

Even if the Commission disputes NAB's conclusions, before making a decision that may cause irreparable losses of existing service, the Commission should at least study the issue in detail and seek public comment on its own analysis. At a minimum, the Commission and all interested stakeholders should base their arguments on a commonly understood set of facts.

### **III. THE COMMISSION'S PROPOSAL WILL STIFLE INNOVATION IN THE BROADCASTING INDUSTRY**

Beyond the impact on translators and LPTV stations, the Commission proposes to require full power broadcasters to preserve at least one vacant channel in every area.<sup>33</sup> This proposal would severely restrict the ability of full power stations to modify or expand their facilities in the future, whether to expand service to new viewers or to offer innovative new services, including the kinds of technologies being discussed in the ATSC 3.0 process today.

After the auction, the Commission's rules will already constrain the ability of some broadcasters remaining on the air to expand or modify their facilities and operations. Broadcasters that are repacked in the 600 MHz band will be unable to expand their facilities in ways that cause increased interference to wireless operations. Further restricting full power television stations, by requiring them to preserve one vacant channel for unlicensed use in every area, will only compound this problem, and risks freezing broadcasters in place.

Forcing full power stations to protect one or more television channels for unlicensed use may largely prevent stations from expanding their contours in any direction. Should the broadcast industry seek to migrate to a new standard, these novel protections will severely hamper the process. Unlike the DTV transition, where stations had an extra channel to effectuate a smooth transition, if stations ever hope to successfully transition to a new broadcast standard, they may need to temporarily share facilities. Yet, some stations may find

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<sup>33</sup> *Id.* at ¶ 29.

themselves unable to cover their complete service areas on a temporary, shared basis if they are unable to expand in any direction to get a roughly common contour with another station.

The Commission should be concerned about the possibility of foreclosing future innovation in the broadcast television band. Freezing broadcasters in time and locking them into their current business model only reduces the potential for intermodal competition and improved viewer experiences in the future.

#### **IV. THE COMMISSION'S PROPOSAL CLOSES THE SIMPLEST ROUTE TO INCREASED MEDIA DIVERSITY**

The Commission's proposal to reallocate television spectrum for unlicensed use will harm diversity in the media industry in two ways. First, by fencing spectrum off from use by displaced low power stations, the Commission will be eliminating LPTV service that provides programming to ethnic and minority viewers. Second, the Commission's proposal will raise barriers to entry, foreclosing the surest path to further diversity in the media industry.

NAB fully agrees with the Commission's previous findings that increasing broadcast ownership opportunities for minorities and women is an important public policy goal.<sup>34</sup> As the Commission recognized more than 30 years ago, "the Commission has traditionally considered the under-representation of minority points of view over the airwaves as detrimental to minorities and the general public."<sup>35</sup>

Unfortunately, the Commission's policies have not succeeded in increasing ownership opportunities for underrepresented groups. Although the Commission's structural ownership

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<sup>34</sup> See, e.g., *Statement of Policy on Minority Ownership of Broadcast Facilities*, 68 FCC 2d 979 (1978); *Amendment of Section 73.3555 of the Commission's Rules Relating to Multiple Ownership of AM, FM and Television Broadcast Stations*, Memorandum Opinion and Order, 100 FCC 2d 74 (1985).

<sup>35</sup> *Commission Policy Regarding the Advancement of Minority Ownership in Broadcasting*, Policy Statement and Notice of Proposed Rulemaking, 92 FCC 2d 849 (1982).

limits have been in place for more than 70 years, women and minorities remain under-represented among broadcast owners. As many parties have consistently recognized, the biggest obstacle to expanding female and minority ownership remains access to capital.<sup>36</sup> Given the cost of buying an operating broadcast station and the challenges of raising sufficient capital to do so, minorities and women interested in entering the broadcast industry often face an uphill climb.

The most effective way to enhance minority and female broadcast ownership is to look at opportunities to reduce barriers to entry into broadcasting. If the Commission is truly interested in fostering diversity in the media industry, rather than passively waiting for a new entrant to raise tens or hundreds of millions of dollars necessary to buy a full-power station in a major market, it should be actively encouraging such potential owners to commence new low power operations, or new full power operations where possible.

Reallocating spectrum in the television band for unlicensed use shuts down this possibility, closing off one obvious path to further diversification of the nation's media industry. Worse, it does so to allocate new spectrum for one of the nation's least diverse industries, the tech industry.<sup>37</sup>

## **V. CONCLUSION**

The fundamental rules of the road for unlicensed operations is that they must work around licensed services – not vice versa. The Commission's proposal reflects a radical

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<sup>36</sup> See, e.g., Initial Comments of the Diversity and Competition Supporters in Response to the Notice of Proposed Rulemaking at 9-10, MB Docket No. 09-182, MB Docket No. 07-294 (March 5, 2012).

<sup>37</sup> See, e.g., Bonnie Marcus, "The Lack of Diversity in Tech Is A Cultural Issue," *Forbes* (Aug. 12, 2015) available at: <http://www.forbes.com/sites/bonniemarcus/2015/08/12/the-lack-of-diversity-in-tech-is-a-cultural-issue/>; Cecilia Kang and Todd C. Frankel, "Silicon Valley struggles to hack its diversity problem," *The Washington Post* (July 16, 2015) available at: [http://www.washingtonpost.com/business/economy/silicon-valley-struggles-to-hack-its-diversity-problem/2015/07/16/0b0144be-2053-11e5-84d5-eb37ee8eaa61\\_story.html](http://www.washingtonpost.com/business/economy/silicon-valley-struggles-to-hack-its-diversity-problem/2015/07/16/0b0144be-2053-11e5-84d5-eb37ee8eaa61_story.html).



departure from its precedent and a fundamental restructuring of Part 15 of the Commission's rules (though no changes to Part 15 are proposed in the NPRM). Before the Commission takes this step, it should have a clear picture of the harm its actions will cause. Unfortunately, in this case, the FCC appears to be insisting it can give spectrum away to unlicensed users without causing any harm.

That assumption is unsupported. If the Commission prevents displaced translators and LPTV stations from accessing replacement channels to preserve white spaces for unlicensed uses, viewers will lose service. If the Commission prevents full power stations from expanding or modifying their facilities to preserve white spaces, it will be stifling innovation in the broadcast service and preventing new service – especially those owned and operated by women and minorities – to favor unlicensed operations over existing and future licensed services. The FCC should abandon its unprecedented and unsupported proposal to favor unlicensed devices over existing and future licensed operations. At the very least, the Commission must conduct a detailed, thorough and complete analysis of such a proposal so that the costs and benefits can be subject to a fulsome public debate. If the FCC is going to disrupt existing services, it should at least do so with its eyes wide open, based on careful consideration of the costs and purported benefits of its actions.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Rick Kaplan", with a long horizontal line extending to the right from the end of the signature.

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Rick Kaplan  
Patrick McFadden

Bruce Franca  
Robert Weller

September 30, 2015