

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Expanding the Economic and Innovation)	GN Docket No. 12-268
Opportunities of Spectrum Through)	
Incentive Auctions)	

**REPLY COMMENTS OF
THE NATIONAL ASSOCIATION OF BROADCASTERS**

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The National Association of Broadcasters (NAB)¹ hereby responds to initial comments filed in the above-referenced Notice of Proposed Rulemaking (Notice or NPRM) regarding the Federal Communications Commission’s (FCC or Commission) implementation of the Middle Class Tax Relief and Job Creation Act of 2012 (Spectrum Act or Act). In these reply comments, NAB addresses four main points regarding the incentive auction process that have substantial consequences for maintaining a strong, healthy and innovative television broadcasting industry: (1) the auction design and band plan should be simple and based on sound engineering as well as economic principles; (2) the incentive auction should rely on market forces and not transform into a regulatory reallocation of broadcast spectrum; (3) the process should remain voluntary for broadcasters, and those who do not participate should be held harmless; and (4) the Commission should minimize repacking so as to preserve viewers’ service, particularly

¹ NAB is a nonprofit trade association that advocates on behalf of local radio and television stations and broadcast networks before Congress, the FCC and other federal agencies, and the courts.

for those communities relying most heavily on free, over-the-air television, including people of color, foreign language speakers and lower income Americans.

I. Introduction and Executive Summary

Upon review of the initial comments in this proceeding, one point is very clear: there are many hard questions about the incentive auction and television broadcaster repacking still left unanswered. NAB remains fully committed to doing its part to assist the Commission in answering these questions and developing and executing a successful auction and repacking that meets the overall objectives set forth by Congress. To that end, NAB remains engaged with many stakeholders to share information and ideas, address emerging challenges and forge consensus, wherever possible. We also urge the Commission to continue and enhance its dialogue with industry and the public at large, as this proceeding raises so many important and challenging technical questions that require thorough vetting and balanced treatment.

NAB appreciates that the Commission has hired some of the best academic minds – including Nobel Prize winning economists – and they have produced some extremely thoughtful and interesting work with respect to the auction design. The overall approach, however, is unnecessarily complex, appears to ignore important engineering considerations and overlooks more basic and straightforward solutions. Rather than designing an economist's academic ideal of a reverse auction untethered from engineering realities, the auction should be designed with an eye towards achieving a viable nationwide band plan driven in part by the realistic repacking of broadcast stations.

A simpler and more effective approach first identifies repacking scenarios nationwide for various realistic amounts of cleared spectrum. This will help the

Commission determine in what markets it needs volunteers, and how many of them, to produce a workable and efficient nationwide plan. The Commission should then project generally what proceeds it expects to raise in the forward auction. Finally, the Commission should maximize its anticipated financial resources by using them to offer a sufficient incentive to stations in the markets where it truly requires volunteers. This approach will allow the Commission to free up spectrum where the wireless carriers assert they really need it (the top 25 markets). From those auctioned markets, the Commission can create nationwide bands of spectrum that avoid the widespread harmful interference that the *Notice's* current variable plan would produce by attempting to clear different amounts of spectrum in markets across the country.

No matter what approach the Commission employs, it simply cannot adopt a split or variable band plan. Every commenter who addressed the *Notice's* lead proposed band plan made clear that a split plan – interspersing broadcasters between wireless uplink and downlink operations – does not work. Commenters also expressed concern with the *Notice's* proposal to incorporate variability into the plan – *i.e.*, permitting broadcasters and wireless carriers to operate co-channel (or adjacent channel) in adjacent markets. NAB's initial comments make clear that a variable plan would create either widespread harmful interference for both broadcasters and wireless carriers or would require substantial wireless exclusion zones, where wireless license holders could not operate on the spectrum they won at auction. In these reply comments, NAB offers a more detailed technical analysis to explain why a variable plan is spectrally inefficient and likely fatally flawed. This is a substantial stumbling block, and the

Commission must undertake a serious and rigorous analysis of the effects of a variable plan on broadcast and wireless operations before adopting a band plan.

NAB is also concerned about comments raising the possibility that the Commission would repack broadcasters beyond the goal of creating nationwide bands of spectrum for commercial wireless services. Whereas Congress clearly intended this process to be driven by market dynamics, some commenters appear to suggest that the Commission should use this repacking opportunity as a pretext for a straight, government-directed reallocation. The infeasibility of variability alone should make this plan a non-starter. Sound public policy also dictates that the Commission should not undertake a reallocation beyond what it needs to create nationwide bands of spectrum for mobile broadband consistent with a voluntary, market-based auction. Apart from contravening Congressional intent, reallocating spectrum beyond the auction through repacking will, among other things: (1) disproportionately hurt Western states by wiping out low power television stations and translators; (2) undercut attempts to diversify the broadcast industry and opportunities for broadcasters to innovate; and (3) eliminate unlicensed use of TV white spaces, which just recently appeared to be a top Commission priority.

These reply comments also reaffirm that the Commission must hold harmless those broadcasters who do not participate in the auction. A “voluntary” auction means that no harm should come to a broadcaster who does not sell its station(s). Broadly speaking, this means three things. First, the Commission must treat the TV Broadcaster Relocation Fund as its repacking budget. Anything else erroneously assumes that Congress intended only to partially compensate broadcasters who did not

volunteer in the auction. Second, the Commission must do all it can to preserve the coverage area and population served of those broadcasters that remain on the air. These two elements are the core of a broadcaster's business. To redefine, reduce or change either the coverage area or viewers actually served by stations will inflict serious damage on our members' ability to compete in the marketplace and serve their local audiences.² Third, the Commission should respect the rights of broadcasters who were following existing rules and procedures to procure new stations or maximize the service provided by their current ones. Changing the rules for broadcasters mid-stream undercuts the Commission's goals of making the process fair to all stakeholders and preserving a healthy and vibrant broadcast industry.

Also below, NAB catalogues the importance of free, over-the-air television, and identifies those who stand to lose the most if the Commission repacks too aggressively. There is no escaping the reality that traditionally underserved communities – people of color, foreign language speakers and lower income Americans – rely more heavily than others on free, over-the-air television. As a result of the auction, these groups are likely to lose stations upon which they rely. If the Commission fails to minimize repacking – as well as the amount of interference it adds during repacking to the stations that remain on the air – then these same viewers also stand to lose access even to the stations that actually remain on the air.

² In addition to proposals in the FCC's rulemaking notice to redefine, reduce or change the coverage area and population currently served by broadcasters, the FCC's Office of Engineering and Technology (OET) recently announced that it was changing the methodology it employs in OET Bulletin 69. See FCC Public Notice, "Office of Engineering and Technology Releases and Seeks Comment on Updated OET-69 Software," DA 13-138 (rel. Feb 4, 2013).

Finally, in the interest of promoting an open and transparent process, NAB identifies four critical areas that require further dialogue and public input on the record before the Commission can produce a report and order governing the auction and repacking process. First, the Commission must release for public review and comment its underlying assumptions and methodologies for its repacking plan, including the repacking software, and give stakeholders ample time to evaluate and test it. Second, as NAB noted in its initial comments, the Commission must seriously engage with Canada and Mexico to timely complete a new agreement with both countries allowing it to repack broadcasters and operate commercial wireless networks in the 600 MHz band in the border areas. Third, the Commission should ask for additional, specific comment on its revised band plan. And fourth, NAB recommends that the Commission hold additional workshops or create a working group to address the myriad difficult and novel issues involved in administering the TV Broadcaster Relocation Fund.

II. The Commission Must Simplify and Refocus Its Auction Approach and Band Plan Design to Ensure Success and to Prevent Widespread Harmful Interference

The initial comments show that both the lead band plan and the *Notice's* overall approach to auction design are divorced from concrete engineering and overlook a simpler path to success. As noted in NAB's opening comments and explained in further detail below, the *Notice's* lead band plan proposal that intersperses broadcasters with commercial wireless operations, and that envisions broadcast and commercial wireless operations operating co-channel (and adjacent channel) in adjacent markets, is unworkable and runs headlong into sound engineering principles. In addition, despite its theoretical elegance, the proposed approach to conducting the auction misses the best opportunity for a successful outcome; namely, first identifying where volunteers are

actually needed to create a viable commercial wireless band plan, and then directing anticipated forward auction funds to those markets to ensure participation.

A. The Split and Variable Elements of the Lead Band Plan Proposal Will Result in Widespread Harmful Interference and Potentially a Failed Auction

As numerous commenters noted, the *Notice's* lead proposed 600 MHz post-auction band plan, while creative and novel, simply does not work in practice. It threatens to inflict significant damage on broadcasters, wireless carriers and ultimately consumers. One of the highlighted aspects of the proposed plan – “splitting” the wireless uplink and downlink and interspersing it with television broadcast operations – is universally viewed as unwise and contrary to sound engineering practices.³

Also creative and novel is the proposal to employ a “variable” band plan that essentially allows the Commission to reallocate and license for commercial mobile wireless operation varying amounts of spectrum in adjacent markets.⁴ NAB understands that the variable plan is designed to solve a potential problem with wayward market(s); the one or handful of markets where the auction might not yield enough participants to develop a worthwhile nationwide band plan. However, as described in NAB's initial comments and in greater detail below, the *Notice's* proposed

³ See Comments of Qualcomm Incorporated in GN Docket No. 12-268 (filed Jan. 25, 2013), at 5-7; Comments of AT&T Inc. in GN Docket No. 12-268 (filed Jan. 25, 2013), at 23-28; Comments of Verizon and Verizon Wireless in GN Docket No. 12-268 (filed Jan. 25, 2013), at 8-10, 14-15; Comments of CTIA – The Wireless Association in GN Docket No. 12-268 (filed Jan. 25, 2013), at 21-28; Comments of the National Cable and Telecommunications Association (NCTA) in GN Docket No. 12-268 (filed Jan. 25, 2013), at 5-7.

⁴ NAB notes that it is not clear whether the *Notice* envisions five, ten or 100 different band plans; it is simply clear that it contemplates *multiple* plans for wireless within the 600 MHz band.

variable plan inevitably leads to either widespread harmful interference or heavily encumbered blocks of spectrum for auction.⁵ It is concerning that the *Notice* does not recognize *any* potential interference concerns as a result of variability and wholly fails to grapple with the basic challenges it clearly raises.⁶ The plan also fails to understand the importance of repacking, and thus how to ensure that the auction is a success in the markets where volunteers are needed most.

There are three key elements that make a variable plan infeasible, particularly in the context of this incentive auction:

- It is based on, and complicated by, the misalignment or differences in channelization between 6 MHz digital television (DTV) channels and the proposed 5 MHz wireless channel blocks resulting in one DTV channel affecting many wireless channels and vice versa.
- It is confounded by the mismatch or differences in service areas for DTV and the Economic Areas (EAs) proposed for wireless broadband resulting in DTV service areas creating preclusion zones affecting multiple wireless service areas.
- It requires large separation distances between wireless and broadcast operations to prevent interference.

⁵ Comments of the National Association of Broadcasters in GN Docket No. 12-268 (filed Jan. 25, 2013), at 39-45. Leading companies in the wireless industry recognized these challenges as well. See AT&T Comments at 4 (asserting that “because the NPRM’s proposal relies so heavily on varying the number of cleared uplink blocks from market to market, depending on how much spectrum is cleared in each market, it would exacerbate the risk of co-channel interference”); Verizon Comments at 7-14 (citing the many challenges associated with the variable plan).

⁶ The courts have previously overturned FCC orders where the agency failed to recognize serious problems with its decision, consider viable options or relevant evidence, and/or address articulated objections to its approach. See, e.g., *Schurz Communications, Inc. v. FCC*, 982 F.2d 1043, 1050 (7th Cir. 1992); *Petroleum Communications, Inc. v. FCC*, 22 F.3d 1164, 1172-73 (D.C. Cir. 1994); *Achernar Broadcasting Co. v. FCC*, 62 F.3d 1441, 1447 (D.C. Cir. 1995).

Each of these elements are examined in greater detail below, and taken together, demonstrate conclusively why a variable plan creates challenges for the auction that are likely insurmountable.

1. Mismatched Blocks of Spectrum Between 600 MHz Broadcast and Wireless Operations Exacerbate the Variability Problem

Even before examining potential interference, one complicating factor in this instance is that the *Notice* calls for licensing or channelizing wireless operations in 5 MHz channel blocks.⁷ Given that broadcast operations occur on 6 MHz channels, there is a natural mismatch between wireless and broadcast operations. This divergence is illustrated in Figure 1 below:

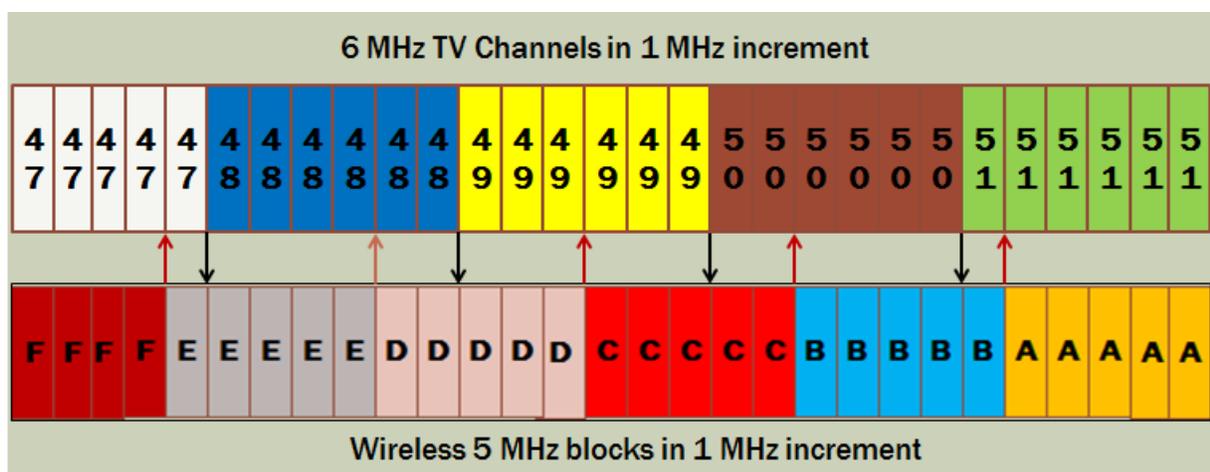


Figure 1

This channel spectrum mismatch has interference implications in a variable band plan. As depicted in Figure 2, television operation on a single channel can cause co-channel interference not only to operations on one channel in an adjacent market, but to

⁷ See *Notice* at ¶¶ 127-130. This is a concept most wireless carriers appear to support. See, e.g., CTIA Comments at 19-20; Verizon Comments at 15; Comments of MetroPCS Communications in GN Docket No. 12-268 (filed Jan. 25, 2013), at 19-22.

two contiguous 5 MHz wireless channels. In this example, TV operation on channel 49 can cause co-channel interference to wireless channel blocks C and D operating co-channel in an adjacent market:

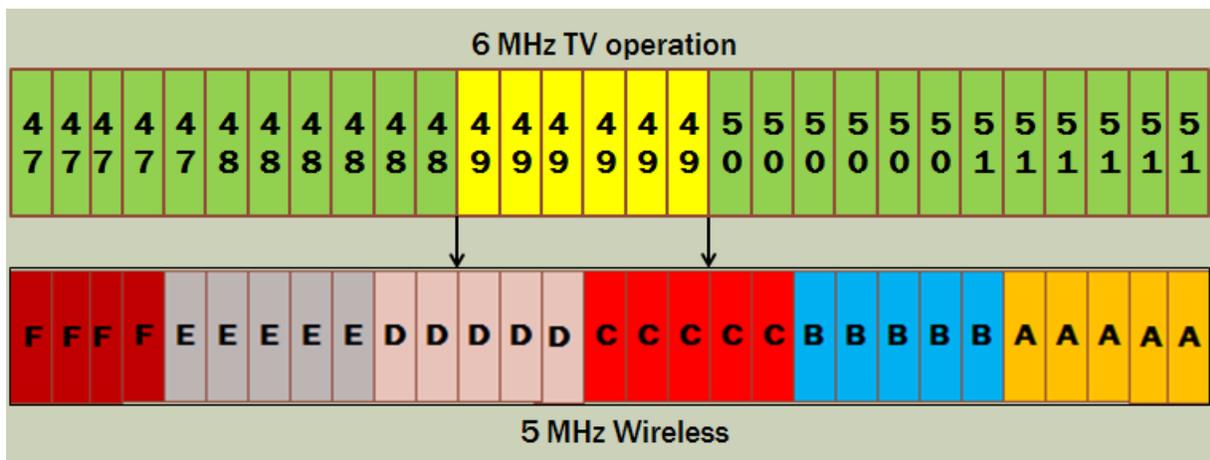


Figure 2

Under the same principle, except for the first wireless channel adjacent to the 700 MHz spectrum, transmissions on a wireless channel can cause co-channel interference to two contiguous TV channels. In the illustration below, a wireless transmission using the C block can cause co-channel interference to DTV reception on channels 49 and 50 and adjacent channel interference to channels 48 and 51.

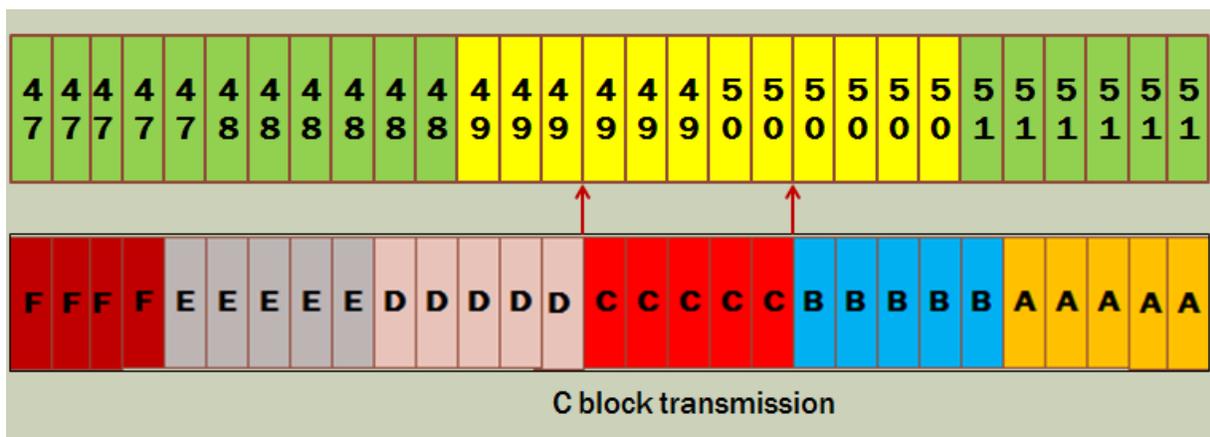


Figure 3

Thus, in the context of this auction, the Commission will have to account for the fact that broadcasters and wireless carriers in adjacent markets will risk interference to multiple channels in both directions.

2. Mismatched Service Areas Between 600 MHz Broadcast and Wireless Operations Also Exacerbate the Variability Problem

The spectrum channel size mismatch is not the only difference between the broadcast and wireless services that would impact wireless operations in this auction. There is also a mismatch in *service areas* between broadcast television and commercial wireless that has interference and service implications. The *Notice* proposes to license wireless operations on the basis of Economic Areas (EAs).⁸ Broadcast television operations are based on the area served by the TV transmitter facility. A DTV station's service area is the geographic area within the station's noise limited contour as defined in § 73.622(e) of the rules. Therefore, TV stations' service areas do not align with the proposed EAs. Figure 4 below shows the service areas of TV stations on channels 48 (yellow), 49 (pink) and 50 (green) along with the boundaries of the EAs for a part of the northeastern United States:

⁸ See, e.g., *Notice* at ¶ 148.

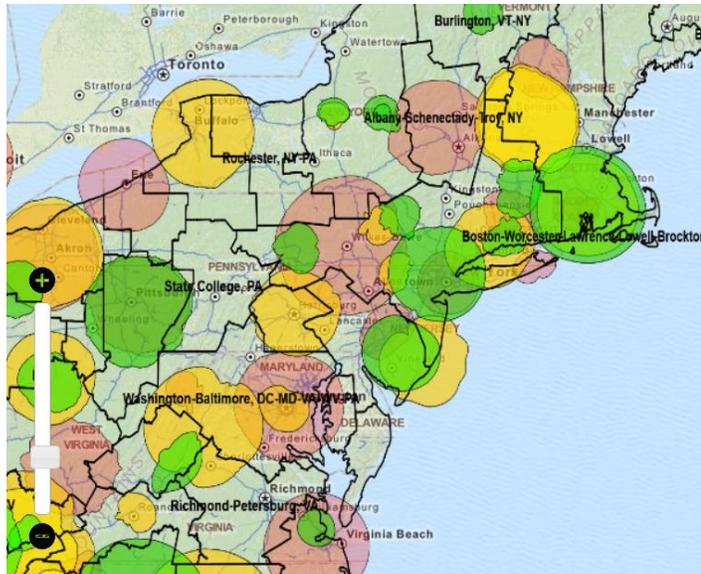


Figure 4

Therefore, not only will there be challenges to wireless and broadcast operations on more than one channel due to the channelization mismatch, but the incongruity in service areas between the two services will lead to interference across multiple EA boundaries.

3. Basic Interference Analysis Demonstrates the Wide Scope of the Problem Created for Broadcast and Wireless Services

While NAB has examined various kinds of interference resulting from the variable nature of the *Notice's* lead proposal (e.g., intermodulation, out of band emissions), the analysis that follows considers only co-channel and adjacent channel interference effects. NAB's examination indicates that there are four potential interference situations that can arise under the variable spectrum plan:

- Interference to DTV reception from a wireless handset uplink transmission;
- Interference to DTV reception from a wireless base station downlink transmission;

- Interference to a wireless base station receiver from a DTV transmission on uplink frequencies; and
- Interference to a wireless handset from a DTV transmission on downlink frequencies.

Given that the lead proposal focuses on “allowing variations in the amount of *uplink* spectrum available in any geographic area,”⁹ we examine and discuss the two uplink cases in greater detail below.

The only reliable technique to mitigate co-channel and adjacent channel interference between television and wireless operations in adjacent markets is geographic separation.¹⁰ As noted in NAB’s initial comments, the Commission has previously established geographic separation requirements to protect broadcast operations from interference from 700 MHz wireless operations in Part 27 of its rules.¹¹ However, there are no separation distances currently specified or developed with regard to protecting wireless uplink operations from interference by DTV operations. To determine the effect on both DTV receivers and wireless operations, NAB has reviewed the current 700 MHz separation distances and calculated required separation distances for each of the two basic uplink interference cases noted above:

⁹ *Notice* at ¶ 124 (emphasis added).

¹⁰ See NAB Comments at 47. Guard bands may be an effective tool with respect to spectrum interference concerns in the *same* market, but not if different spectrum is available in adjacent markets, as is the case here.

¹¹ See 47 C.F.R. § 27.60.

Interference		Separation Distance to Mitigate Interference (km)	
From	To	Co-channel	Adjacent Ch.
Handset Transmission	DTV Receiver	DTV Contour + 5 km	DTV Contour
DTV Transmission	Base Station Receiver	225 to 375 km	100 to 130 km

Table 1 – Required Separation Distances¹²

With regard to protection of DTV reception, our studies generally reaffirm the current Part 27 protection values for the 700 MHz band and the interference protection separation distances contained in § 90.309 of the rules. DTV receiver performance was based on the results of the latest FCC tests of DTV receivers contained in OET Report, *Interference Rejection Thresholds of Consumer Digital Television Receivers Available in 2005 and 2006*, and April 2010 *ATSC Recommended Practice: Receiver Performance Guidelines*.¹³ These calculated protection distances for interference from wireless

¹² With regard to downlink operations, our studies generally reaffirm the current Part 27 protection values for the 700 MHz band and the interference protection separation distances contained in § 90.309 of the rules. Base station operations would generally be restricted to operating outside the DTV contour and must be located a minimum of 209 to 145 km from the DTV transmitter, depending on antenna height and power on co-channel operations and 145 km from the DTV transmitter for adjacent channel operations if mobile units are associated with the wireless base station. These distances would apply to the protection of both DTV receivers and wireless handsets.

¹³ See *OET Report, FCC/OET 07-TR-1003, Interference Rejection Thresholds of Consumer Digital Television Receivers Available in 2005 and 2006*, March 30, 2007, prepared by Stephen R. Martin, Technical Research Branch, Laboratory Division, Federal Communications Commission; see also *ATSC Recommended Practice: Receiver Performance Guideline, A/74:2010*, April 7, 2010, Advanced Television Systems Committee, Inc.

handsets are also similar to the protections used for personal/portable TV white spaces devices.¹⁴

For the protection of wireless operations, our studies looked at a signal level that would ensure that the TV transmission did not degrade or “desense” the ability of the base station receiver to receive a weak signal from a wireless handset, and a signal level that would permit some degradation but at a level believed to be tolerable and still allow the provision of wireless service. We considered the following two conditions: (1) the TV signal field strength at the base station receive site does not exceed 17 dB μ ; and (2) the TV signal field strength at the base station receive site does not exceed 40 dB μ . We then computed the separation distances between the TV station and the wireless base station using the FCC R-6602 curves for the two conditions described above, to derive the separation distances in Table 1.

The first uplink interference case is a wireless handset causing interference to a DTV receiver.¹⁵ As shown in Table 1, to avoid interference to a DTV receiver, the wireless handset may not transmit within 5 km of the service area of a co-channel DTV station and may not transmit within the service area of a DTV station on an adjacent channel. Because of the channel mismatch between DTV and wireless operations noted above, this co-channel restriction would apply to not just one, but to *two* wireless

¹⁴ See 47 C.F.R. § 15.712(a)(2).

¹⁵ The *Notice* proposes a uniform amount of downlink spectrum nationwide except where there is excess wireless spectrum that cannot be paired. It proposes to make that downlink spectrum available on an unpaired basis to serve as supplemental downlink expansion frequencies. Table 1 provides the interference distances required for use of these expansion channels and such variability in downlink spectrum will provide similar interference issues as discussed above for the uplink.

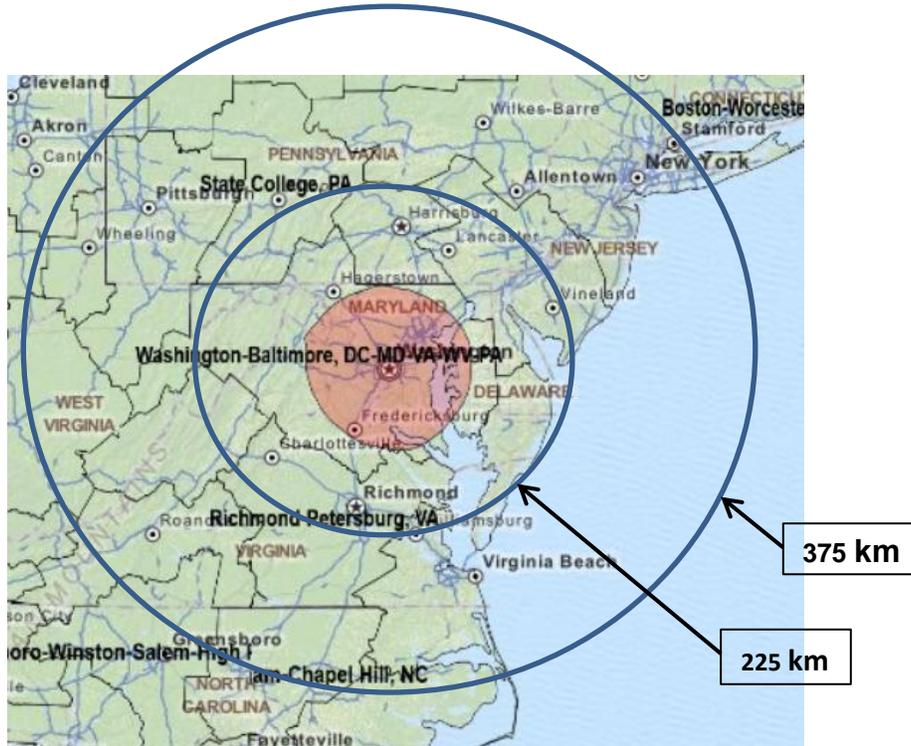
channel blocks.¹⁶ So, for example, if we employ the sample channel plan as shown in Figure 3, wireless handsets operating on channel blocks C and D could not operate within 5 km of the TV station's channel 49 service area. For adjacent channel protection operation, wireless handsets on adjacent channels B and E would also be precluded from operating within the TV station's channel 49 service area. In this standard example, wireless handset operation on a total of four wireless channel blocks are impacted from a single DTV channel under the variable plan.

The second uplink case is interference from the TV transmitter to the wireless base station receiver. As can be seen from Table 1, the required separation distance to prevent interference to the wireless base station receiver from a DTV transmitter is the largest value and therefore the most significant interference consideration in a variable uplink plan. This is due, in part, to the fact that: (1) the base station receiver must be sensitive enough to receive the relatively weak signals from the handset; and (2) the wireless base station receiver is generally mounted on a tower or building or other high site to improve reception over a wide area. These factors make it more likely that high power television operations in the adjacent market will cause serious problems.

As indicated above, we calculated the necessary separation distances for both co-channel and adjacent channel operation under conditions where we believe no interference would be caused to the wireless base station and where some de-sense of

¹⁶ FCC DTV receiver test results included interference from 8-VSB DTV signal; Gaussian noise signals of 1 MHz and 6 MHz; and a 5 MHz OFDM signal. D/U ratios for the 1 MHz reduced bandwidth signal were comparable to those for wider undesired areas. Therefore, any interfering signals of 1 MHz or greater in an adjacent 6 MHz block could create adjacent channel interference to a DTV receiver. See *OET Report, FCC/OET 07-TR-1003, Interference Rejection Thresholds of Consumer Digital Television Receivers Available in 2005 and 2006*, March 30, 2007, at x and Chapter 7.

the receiver would occur but that the degradation would be tolerable.¹⁷ For co-channel interference, these distances were approximately 375 km and 225 km. The following figure illustrates, by way of example, these interference distances for TV channel 48 in Washington, DC.¹⁸



DTV Channel 48

¹⁷ Some variation in the separation distances will also occur due to the actual power and height of the TV transmitter and the height and sensitivity of the wireless base station. Our calculations are based on a wireless base station antenna height of 30 feet. Many wireless base stations are located at higher heights that would increase the interference distances calculated. These separation distances were calculated using the FCC R-6602 F(50,10) curve for UHF, assuming a one Megawatt ERP television transmission at 305 meter Height Above Average Terrain (HAAT), and receive wireless base station at 30 feet above ground. Two wireless receiver threshold field strength levels (17 dBμ and 40 dBμ) were used to illustrate the ranges that will likely to be required so as not to degrade the reception of a wireless base station receiver.

¹⁸ This case would occur, for example, if three TV channels were cleared in Washington and four or five TV channels were cleared in all other markets in the northeast, an example similar to that suggested in footnote 209 of the *Notice*.

Even at the smaller 225 km interference distance (or wireless “exclusion zone”), a single station can significantly affect the amount of spectrum actually available to wireless carriers. As the example above demonstrates, continued broadcast operation on channel 48 in Washington, DC would impact a total of *seven* EAs: EA9 State College; EA11 Harrisburg-Lebanon-Carlisle; EA12 Philadelphia-Wilmington-Atlantic City; EA13 Washington-Baltimore; EA14 Salisbury; EA15 Richmond-Petersburg; and EA16 Staunton. Using the larger and likely more realistic separation distance, the number of EAs impacted would increase to *fifteen*.¹⁹ In addition, this co-channel impact would be to two wireless spectrum blocks, channels D and E.²⁰

The foregoing demonstrates that the separation distance that must be employed between television broadcast and broadband services operating on the same or adjacent spectrum blocks creates large wireless “exclusion zones.” In these zones, wireless carriers cannot operate or operation would be severely restricted because either they would cause interference to television viewers or would receive interference from television transmissions.²¹

¹⁹ The additional EAs would include EA10 New York-Northern New Jersey-Long Island; EA17 Roanoke; EA18 Greensboro-Winston-Salem-High Point; EA19 Raleigh-Durham-Chapel Hill; EA20 Norfolk-Virginia Beach-Newport News; EA48 Charleston; EA52 Wheeling; and EA53 Pittsburgh.

²⁰ Similar but smaller preclusion zones and interference effects would occur on adjacent channels.

²¹ NAB Comments at 39; see also Comments of CBS Corp., *et al.* (Broadcast Networks) in GN Docket No. 12-268 (filed Jan. 25, 2013), at 10 (“Especially in congested geographic areas, such as the Northeast corridor, the proximity of these operations would risk substantial interference and thus consumer disruption.”).

A variable plan also makes it far more difficult to employ fungible forward auction spectrum blocks, as anticipated in the *Notice*.²² Given that many blocks would be encumbered by co-channel (or adjacent channel) interference, and it will be extremely difficult if not impossible to know which ones and to what degree until repacking is concluded, the Commission could not even divide the blocks into unencumbered and encumbered categories. Even if that were possible, there would be many different degrees of encumbrances, and the encumbered category would ultimately not prove fungible. Forward auction bidders facing such uncertainty would undoubtedly reduce their bid amounts and perhaps even scale back their overall level of auction participation.

B. An Auction Design That Begins With a Nationwide Band Plan Is Far Simpler and Has a Greater Chance of Success

Rather than continue to pursue such a technically infeasible course, NAB urges the Commission to employ a band plan that provides dedicated, nationwide, contiguous frequency bands for both broadcast and wireless broadband. NAB strongly believes that a band plan with nationwide spectrum blocks is the simplest, most flexible and most beneficial approach for broadcasters, wireless providers and, most importantly, consumers.

Some commenters raise concerns about relying on nationwide bands, given the potential delay associated with international coordination (thus making distinct border band plans more appealing) and the challenge of clearing enough spectrum in some of

²² See *Notice* at ¶ 151.

the largest markets.²³ With respect to the former, on March 7, 2013, NAB filed a letter with the Commission detailing a five-point plan to accomplish the necessary international coordination in a timely fashion.²⁴

With respect to the latter, as long as the theory behind incentive auctions is correct – that wireless companies value certain 600 MHz spectrum more than broadcasters – a properly focused auction process will yield the requisite number of volunteers. The central focus should be the need to free enough spectrum to yield workable *nationwide* bands. The current auction design does not take this into account.

The best way to tackle this problem is to determine where the Commission needs volunteers and then design an auction that creates sufficient incentives for broadcasters in those markets to participate. To accomplish this, the Commission should analyze

²³ See, e.g., AT&T Comments at 16-17 (stating that there is no “reason to eliminate market-by-market variation in downlink spectrum; that approach would leave spectrum on the table by limiting the available spectrum nationwide to the lowest-common-denominator markets with the fewest cleared spectrum blocks”).

²⁴ See Letter from Rick Kaplan, NAB Executive Vice President, Strategic Planning, to Gary Epstein, Incentive Auction Task Force Chair, *et al.*, in GN Docket No. 12-268 (March 7, 2013) (NAB International Coordination Letter). Many initial commenters agreed with NAB that the FCC should move on international coordination expeditiously. The Consumer Electronics Association, for example, states that expedited international coordination is necessary and that the “Commission should consider creating a task force or similar working group dedicated to this coordination effort so that it does not become a gating factor in the incentive auction process.” Comments of the Consumer Electronics Association (CEA) in GN Docket No. 12-268 (filed Jan. 25, 2013), at 33. Spectrum Bridge, Inc. (Spectrum Bridge), an FCC-approved TV White Space Database Provider, notes that stations just over the border have a potential impact, both on the practical use of the spectrum in the US as well as possible cross border interference into Canada and Mexico. See Comments of Spectrum Bridge in GN Docket No. 12-268 (filed Jan. 24, 2013), at 10. Verizon and Verizon Wireless note it may be necessary to modify existing 700 MHz band international arrangements or create new arrangements in areas along the U.S. borders and state that it is very important to begin those discussions with Canada and Mexico now. Verizon Comments at 63-64.

various nationwide repacking scenarios to determine how many stations in each market it would need to achieve clearing targets consistent with what it may realistically obtain in the reverse auction (*i.e.*, between 60 and 84 MHz).²⁵ Then, the Commission should estimate the proceeds to be garnered from the forward auction. With that information – both how many volunteers are needed to reach the various clearing targets and the amount of available money – the Commission can focus its resources in the reverse auction on the markets where it must have volunteers to create nationwide bands for mobile broadband.

The key to NAB’s proposal is to use a realistic nationwide band plan to guide the auction. Rather than overlooking the vast up-front information the Commission could have, it should use that data to guide its process. The incentive auction should be designed to achieve a nationwide result instead of cultivating a process that attempts to maximize spectrum in each individual EA, resulting in significant market variations that ultimately will prevent the use of spectrum effectively and efficiently everywhere.

III. The Spectrum Act Authorizes a Market-Based Auction Process, Not a Wholesale Reallocation as Some Commenters Suggest

The Commission’s desire to apply new market forces to the 600 MHz spectrum led it to ask Congress to authorize voluntary incentive auctions. As Chairman Genachowski has said on countless occasions, incentive auctions “bring *market forces*

²⁵ An outcome yielding 60 to 84 MHz of spectrum nationwide would allow the Commission to create paired spectrum blocks ranging from 20x20 to 35x35 MHz. Some wireless carriers have suggested that if the process resulted in more spectrum, the Commission could use it for supplemental downlink. Freeing up broadcast spectrum to create more supplemental downlink spectrum certainly should not be a priority because the record does not demonstrate either that carriers are actively employing supplemental downlink domestically, or that spectrum allocated for supplemental downlink would have much value in an auction.

to bear on spectrum licensees.”²⁶ The notion is that, in certain circumstances, one or more wireless companies may value particular 600 MHz spectrum more highly than the current television broadcast licensee, and an incentive auction could enable the transfer of the spectrum from the willing broadcast seller to the willing wireless industry buyer. “Repacking” – the act of shifting individual broadcasters to different channels – is then used to reorganize the auctioned spectrum so that wireless carriers can operate on nationwide channels of spectrum. This reorganization helps avoid the challenge for wireless carriers of designing devices that can operate on different channels within the 600 MHz band, depending on the market in which the consumer is using his or her device. In other words, the role of repacking in an otherwise market-driven process is to complement the auction so that the resulting commercial wireless band can be of maximum value to the auction winners.

The record, however, contains comments suggesting that the Commission need not be guided by a *market-driven* auction. Rather, some contend that, within this proceeding, the Commission could repack broadcasters to reallocate as much spectrum as possible to the wireless industry (whether needed or not) and do so wholly apart from the goal to create nationwide bands of spectrum for mobile broadband.²⁷

²⁶ Remarks of FCC Chairman Julius Genachowski at GSMA Mobile World Congress, Feb. 27, 2012, at 6 (emphasis added); see also Remarks of FCC Chairman Julius Genachowski at International CTIA Wireless 2012, May 8, 2012 (calling incentive auctions a “market-based solution for repurposing spectrum”); Remarks of FCC Chairman Julius Genachowski, “Winning the Global Bandwidth Race: Opportunities and Challenges for Mobile Broadband,” Oct. 4, 2012, at 5 (“Incentive auctions are an innovative market-based tool to repurpose for mobile broadband valuable spectrum in the broadcast television band . . .”).

²⁷ See, e.g., Comments of United States Cellular Corporation (USCC) in GN Docket No. 12-268 (filed Jan. 25, 2013), at 2 (“Because the Spectrum Act permits only one reverse

Nothing in the Spectrum Act suggests that Congress contemplated that the Commission would eliminate or reduce broadcast services beyond what might result from the incentive auction in order to *reallocate* broadcast spectrum to the commercial wireless industry. Rather, it was contemplated that repacking would be utilized merely as a tool to *organize* the newly freed up bands of voluntarily vacated spectrum so that the wireless industry can more easily deliver its services to consumers.²⁸ Anything beyond such repacking changes the entire complexion of the auction process and would run afoul of the intent of Congress. Moreover, any such reallocation would primarily involve rural areas where there is no need for additional wireless spectrum, and would seriously harm low power television stations (LPTVs) and translators that are currently providing essential services to the American people.

To understand why a forced reallocation of this sort has no roots in the market, one can look at the Commission's proposed rules. Under those rules, broadcasters are not even allowed to compete to win the spectrum licenses to operate broadcast stations on that spectrum. So, for example, even if in certain areas – especially rural areas where repacking could yield spectrum far beyond what is attainable in nationwide bands – the broadcast industry values the spectrum more highly than the wireless industry (*i.e.*, in an auction a station would outbid a wireless carrier), the spectrum would go to

auction and one reorganization of the broadcast television spectrum, the Commission must use this lone opportunity to repurpose as much spectrum as possible"); Verizon Comments at 9 (referencing markets “[w]here more than 120 MHz are cleared”).

²⁸ Indeed, Section 6403(b) of the Spectrum Act is entitled “*Reorganization of Broadcast TV Spectrum*” (emphasis added), and provides that the FCC’s authority in such reorganization is “[f]or purposes of making available spectrum to *carry out the forward auction.*” *Id.* at Section 6403(b)(1) (emphasis added).

the lesser-valued commercial wireless use because broadcast service is not an option in the new 600 MHz wireless band. This fact belies the entire rationale undergirding an incentive auction: that the FCC should allocate spectrum to its highest-valued use, not simply repurpose spectrum at government whim.

At its core, a reallocation of spectrum is essentially a government judgment that one technology – or in this case one delivery system – is more important or valued than another. It is a command-and-control decision and strays far from having any market basis. To undertake a reallocation, the FCC would need to open a proceeding to look at the relative value of the services and make judgments about the best use of spectrum. The *Notice* in no way suggests the kind of inquiry necessary to simply take spectrum from broadcasters and hand it to the wireless industry.²⁹ Moreover, Chairman Genachowski has made clear that “of course we won't be picking winners and losers. The notion that we might misunderstands the fundamental purpose of incentive auctions. The fundamental purpose of incentive auctions is to bring market forces to bear on spectrum.”³⁰

Apart from the fact that Congress never intended its market-based incentive auction legislation to serve as a pretext for a regulatory reallocation, reallocating

²⁹ The U.S. wireless industry controls more than 600 MHz of spectrum, with many more MHz being designated for mobile broadband use in the next five years. See *The Mobile Broadband Spectrum Challenge: International Comparisons* (Feb. 26, 2013), available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db0227/DOC-318485A1.pdf. This total is more than double what is currently allocated to broadcast television, even prior to the incentive auction, and is second only to Australia in terms of amount of spectrum allocated to commercial mobile wireless services among developed nations. *Id.*

³⁰ Remarks of FCC Chairman Julius Genachowski at NAB Show 2012, April 16, 2012 at 7.

spectrum from broadcast to wireless uses, beyond the amounts reclaimed in the auction for a nationwide band, is contrary to the public interest. Should the Commission zealously repack broadcasters beyond what it needs to create nationwide bands of spectrum corresponding to the auction, it will: (1) severely and unnecessarily cripple LPTV and translator services, especially in the West; (2) undercut efforts to diversify the broadcast industry in terms of ownership and programming, and hobble broadcast efforts to innovate and compete; and (3) undermine the Commission's relatively recent and significant push to free up TV "white spaces" across the nation. Finally, despite comments suggesting otherwise, there is simply no reason the Commission should add a fixed and mobile services allocation to the post-auction *broadcast television* band.

A. Going Beyond a Market-Driven Mechanism to Repurpose Spectrum Will Almost Entirely Eliminate Low Power Television and Translator Services in the Areas Americans Most Rely Upon Them

The Spectrum Act states specifically that it does not "alter the spectrum usage rights of low-power television stations."³¹ It appears therefore that Congress did not seek to change LPTV's current status as a "secondary service."³² In practice, this means that, in the context of the auction, Congress did not protect LPTV stations and

³¹ Spectrum Act § 6403(b)(5).

³² *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television*, Report and Order, 19 FCC Rcd. 19331, 19342 (2004) ("Stations in the low power television service are authorized with "secondary" frequency use status. These stations may not cause interference to, and must accept interference from, full-service television stations, certain land mobile radio operations and other primary services.").

translators in the same manner as full power and Class A stations. It does not mean, however, that the FCC should treat these services as non-existent.³³

As a natural consequence of the auction as authorized by the Spectrum Act, a significant number of the 1,984 LPTVs and 4,171 television translator stations³⁴ will be forced to go off the air. This is because they either: (1) operate on a channel near the top of the current TV band, will be displaced by the new commercial wireless band plan and will not have any place to relocate; (2) operate on a channel near the top of the current TV band, will be displaced and cannot afford to pay the costs to move; or (3) operate below the new commercial wireless band plan, but will be displaced by a full power or Class A station that has been repacked onto the LPTV's or translator's channel and they either have no other channel on which to operate or cannot afford to move and remain on air. Thus, displaced LPTV stations will have limited options for continued over-the-air operation after repacking is completed, and many LPTV stations will be forced to abandon operations entirely.

The fact that the auction will already have a damaging impact on LPTV and translator services is a strong reason to protect them wherever possible during repacking. Neither the statute nor the legislative record suggests that Congress believed those services were inferior or had ceased to provide important public value. Indeed, for more than 30 years, the Commission has consistently lauded the role LPTVs and translators have played, both as providers of much-needed diverse programming

³³ In particular, those populations served by full-power stations through translators should be recognized and protected. See Section IV.C.1, *infra*.

³⁴ See News Release, Federal Communications Commission, "Broadcast Station Totals as of December 30, 2012" (Jan. 11, 2013).

and ownership opportunities for minorities and women,³⁵ and as a lifeline to Americans throughout the country, where LPTVs and translators provide the only means for them to obtain free over-the-air television.³⁶ And as the Association of Public Television Stations (APTS) explained, “[t]he fact that translators are secondary services without interference protection would be of little consolation to any viewers who lose service if translators are forced off air due to increased interference or a complete loss of spectrum access.”³⁷

³⁵ See *Notice* at ¶ 358 (“Low power television stations are a source of diverse and local television programming.”); see also Comments of the National Hispanic Media Coalition (NHMC) in GN Docket No. 12-268 (filed Jan. 25, 2012), at 3-4 (noting that LPTV “outlets have proven to be a possible entry point for owners of color and often offer unique services to their communities,” and that while Latinos owned only “a mere 2.9 percent” of full power television stations, “[o]wnership of low power television stations by Latinos [i]s slightly higher at 9.6 percent, and growing, indicating that low power television could be a viable market entry point for our community”).

³⁶ See *Amendment of Parts 73 and 74 of the Commission’s Rules to Establish Rules for Digital Low Power Television*, Report and Order, 19 FCC Rcd. 19331, 19342 (2004) (“Television translators have played a unique role in delivering over-the-air programming of TV broadcast stations to many communities otherwise unable to receive such service, and we want this service to continue in the digital age.”); see also *Ex parte* letter from Richard Zaragoza on behalf of Colorado Broadcasters Association, *et al.*, in GN Docket No. 12-268 (filed March 7, 2013), at 1 (“Approximately 500,000 residents, from the Denver DMA northward, are served by an estimated 450 LPTV stations and TV Translators which are a vital part of the Federal and State emergency alert systems protecting those residents. In addition, many of those TV Translators also function as necessary links in daisy chains in order to cover rural populations in mountainous terrain. For that reason, the loss of a single TV translator could have a cascading, disabling effect on the other translators in a chain.”); see also *Ex parte* letter from Frank Jazzo on behalf of the New Mexico Broadcasters Association in GN Docket No. 12-268 (filed March 7, 2013).

³⁷ Comments of the Association of Public Television Stations, Corporation for Public Broadcasting, and Public Broadcasting Service in GN Docket No. 12-268 (filed Jan. 25, 2013), at 11. NAB also strongly agrees with APTS that “the Commission should avoid condensing the band more in rural areas than in urban areas.” *Id.* at 12. As APTS explains: “Just because it might be *possible* to reclaim more spectrum in remote, rural areas does not mean that it must or should be done. To the contrary, accommodating

If the Commission goes beyond nationwide bands to acquire additional broadcast spectrum in areas where more aggressive repacking is possible (but not required to create a nationwide band), LPTVs and translators in those areas may become extinct.³⁸ This effect would be particularly pronounced in rural America, and in particular states such as Arizona, California, Oregon, New Mexico, Nevada, Colorado, Utah, Wyoming, Montana and Idaho. The following table provides a guide for how LPTVs and translators will be impacted in certain states under different clearing targets:

translator service in these rural areas, where they are needed the most to maintain universal service, is consistent with congressional intent that low power television stations not be involuntarily forced to cease broadcasting. This is especially true given that there is less bandwidth demand on mobile broadband networks in these geographic areas.” *Id.* at 12 (emphasis in original).

³⁸ See Comments of the National Translator Association in GN Docket No. 12-268 (filed Jan. 25, 2013), at 1 (“NTA’s paramount concern is in the preservation of TV translator delivery, especially to homes that may have no alternate source, and stand to lose all television service if TV translator service is impaired or terminated.”).

State	Total Stations	Minimum No. of Stations Impacted by Spectrum Amount					
		120 MHz		84 MHz		60 MHz	
		Must Move*	Must Go Off-Air	Must Move*	Must Go Off-Air	Must Move*	Must Go Off-Air
Arizona	236	109	30	78	11	54	5
California	637	258	114	187	58	131	12
Colorado	545	221	124	151	82	104	56
Montana	470	160	24	118	7	90	1
Minnesota	256	135	23	96	12	69	4
New Mexico	301	148	7	104	2	79	--
Nevada	362	150	42	107	21	75	7
N. Carolina	208	93	25	65	6	50	--
Oregon	422	180	66	122	36	91	20
Texas	626	302	34	231	5	148	--
Utah	1154	534	652	356	589	239	554
Washington	229	97	17	66	8	47	2

Table 2³⁹

Thus, by way of example, if the auction yielded an 84 MHz nationwide plan, but the Commission repacked Colorado so that it repurposed 120 MHz, the Commission would be reallocating that extra, likely unneeded, spectrum for commercial wireless service at the expense of eliminating another 40 (or 50 percent more) LPTVs and translators that provide service in the state of Colorado alone.

To preserve these critical services – especially in rural America – the Commission should refrain from reclaiming more broadcast spectrum than it requires to create nationwide bands of spectrum through the auction. Chairman Genachowski has

³⁹ These values only include stations that are currently on TV channels that would be reclaimed. To limit the number of stations that must go off the air, a significantly higher number of stations would be required to be repacked and moved to new channels.

previously acknowledged that such repurposing was not at issue because there is simply no spectrum crunch in rural America:

Some argue that incentive auctions would hurt rural America to help urban America. This massively misses the mark. . . . It also ignores the reality that, with respect to broadcast stations and viewers, incentive auctions will have little if any effect in rural America -- because spectrum supply is much less of an issue in less populated areas.⁴⁰

Given that spectrum supply is more than meeting wireless demand in rural America, we urge the Commission to refrain from going beyond what it can obtain in a nationwide band for mobile broadband, and protect essential LPTV and translator services in areas that use and rely on them.⁴¹

B. Repacking Beyond the Nationwide Band Plan Threatens to Hobble Broadcaster Diversity and Innovation

Engaging in a widespread reallocation of spectrum beyond the confines of the auction also threatens diversity in broadcasting and hamstringing broadcasters' ability to grow and innovate in the future. By eliminating any room for broadcasters to grow within our own spectrum band, the Commission would be freezing the industry in time

⁴⁰ Remarks of FCC Chairman Julius Genachowski at NAB Show 2011, April 12, 2011, at 8.

⁴¹ At a minimum, NAB agrees with APTS that the Commission should permit LPTV and translator operation until the spectrum in question is actually being used, not simply licensed. APTS correctly argues that "translators should be permitted to operate out-of-core indefinitely until they are displaced by a winning bidder that actually builds out and makes use of the spectrum acquired in the forward auction for mobile broadband service." APTS Comments at 12; see also Comments of Weigel Broadcasting Company in GN Docket No. 12-268 (filed Jan. 25, 2013) (asking that the Commission not create "short markets" by eliminating low-power TV stations that carry national network programming in short markets).

and hampering our ability to diversify and innovate to the benefit of American consumers.⁴²

While the FCC is currently grappling with the issue of diversity in its 2010 Quadrennial Review,⁴³ the *Notice* in this proceeding does not tackle with any seriousness the impact the auction and repacking will have on diversity in broadcast television ownership and programming. The *Notice* gives short shrift to this issue⁴⁴ despite the National Broadband Plan's recommendation that, before conducting an incentive auction, "the FCC should study the potential impact on minority and women ownership of TV stations."⁴⁵ The *Notice* does not suggest that such a study has taken place or is in process.

Zealous repacking – in particular repacking as a means of reallocation – is likely to have a devastating impact on diversity. Not only will a reallocation likely reduce significantly the number of diverse LPTVs across the nation,⁴⁶ but also it forecloses a

⁴² See Comments of Comcast Corp. and NBCUniversal Media in GN Docket No. 12-268 (filed Jan. 25, 2013), at 8.

⁴³ See, e.g., Communications Daily, "Genachowski Pauses Media Ownership Proceeding for MMTC Study," Feb. 27, 2013 at 1-2.

⁴⁴ See *Notice* at ¶ 357 (one of the lone mentions of the issue of diversity in this context invites "comment on measures that the Commission might take outside of the context of the multiple ownership rules to address any impact on diversity that may result from the incentive auction").

⁴⁵ Federal Communications Commission, CONNECTING AMERICA: NATIONAL BROADBAND PLAN (2010), at 91 (National Broadband Plan).

⁴⁶ See *supra* Note 35 (NHMC Comments); see also Comments of Entravision Holdings, LLC, in GN Docket No. 12-268 (filed Jan. 25, 2013), at 14-15 ("The provision of OTA Spanish-language programming via LPTV Stations has become an increasingly important avenue for providing specialty programming to often underserved audiences, and Entravision, like many other Spanish-language broadcasters, has invested considerable resources in expanding its LPTV services and preparing its LPTV stations for digital operations.").

primary mechanism for growing the ranks of minority media owners. If there are fewer channels available, there are fewer opportunities for new minority entrants. The National Broadband Plan flagged this issue, recommending that “the FCC should seek to ensure that longstanding policy goals under the Communications Act are to be met, such as . . . opportunities for new entrants to participate in the industry, including women and members of minority groups.”⁴⁷ The point is, not only will an aggressive repacking seriously undercut the lack of diversity we have today, but it will also freeze it in time.

A reallocation approach also handcuffs broadcasters in their attempts to innovate and grow. As a policy matter, the Commission should not only be technology neutral, but should continue to foster competition *among* services, and even look to facilitate collaboration among industries to deliver the services consumers desire in the most efficient manner possible. For broadcasters, it is essential to retain the ability to deliver new technologies, such as ultra-high definition television, new generations of Mobile TV and possibly even to marry broadcast, wireless or cable transmission capabilities to provide the most efficient means of delivering goods and services to consumers. Preserving spectrum into which the broadcast industry can grow is vital to our future.

C. Changing the Process From a Market-Based Auction to a Regulatory Reallocation Will Undercut the Commission’s Recent Push to Free TV White Spaces for Unlicensed Use

A little more than two years ago (and after nearly a decade), the Commission completed its longstanding proceeding to free up “white spaces” in the television bands.

⁴⁷ National Broadband Plan at 91.

At the time, the Commission emphasized how important its action was, and the widespread innovation it sought to unleash. The order stated:

[W]e are finalizing rules to make the unused spectrum in the TV bands available for unlicensed broadband wireless devices. This particular spectrum has excellent propagation characteristics that allow signals to reach farther and penetrate walls and other structures. . . . The potential uses of this spectrum are limited only by the imagination. . . . This type of ‘opportunistic use’ of spectrum has great potential for enabling access to other spectrum bands and improving spectrum efficiency. Our actions here are expected to spur investment and innovation in applications and devices that will be used not only in the TV band but eventually in other frequency bands as well.⁴⁸

The *Notice* reaffirmed the Commission’s commitment to white spaces, noting that potential unlicensed use in the guard bands “is in addition to (rather than in lieu of) the white space spectrum that exists today in the UHF band, and will continue to exist after the repacking of the broadcast services.”⁴⁹

Despite the excitement about white spaces,⁵⁰ an aggressive repacking of broadcasters – especially beyond the nationwide bands established through a market-based auction – will essentially foreclose their use. Repacking already threatens white

⁴⁸ *Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, Second Memorandum Opinion and Order, 25 FCC Rcd 18661 at ¶ 1 (2010).

⁴⁹ *Notice* at ¶ 126 n.198

⁵⁰ Within the past year, Chairman Genachowski called the Commission’s work on white spaces “the most significant release of spectrum for unlicensed use in 25 years.” Remarks of FCC Chairman Julius Genachowski to International CTIA Wireless 2012, May 8, 2012. The Commission also just activated its white spaces databases. See Public Notice, Federal Communications Commission, “Office of Engineering and Technology Authorizes TV White Space Database Administrators to Provide Service to Unlicensed Devices Operating in Unused TV Spectrum Nationwide,” ET Docket No. 04-186 (rel. March 1, 2013).

spaces by definition; it is designed to reduce the “free” or “white” space between television channels. An aggressive reallocation will finish off white spaces, rendering the Commission’s previous efforts in this area null and void. Rather than repack to squeeze every last megahertz from towns across the country, the Commission should preserve white spaces, as a number of industries have been working for more than two years as a result of the Commission’s order to bring innovative goods and services to consumers. If the Commission reverses course and turns its back on white spaces, it will be undermining confidence in the agency’s ability to create a stable environment for investment and innovation of the sort it asserted white spaces could deliver.

D. The Commission Should Not Add a Fixed and Mobile Allocation to the Post-Auction Broadcast Television Band

The *Notice* proposes to add fixed and mobile wireless services to the *post-auction broadcast television band* despite no expectation that new wireless services will be deployed in the resulting broadcast television band.⁵¹ Although some wireless providers support this proposal,⁵² there is simply no justification for adding fixed and mobile wireless allocations to the *post-auction television band*. Adding co-primary wireless services to the new television band would threaten to displace LPTV stations and TV translators that would be secondary to new wireless services in the band.

CTIA argues that adding fixed and mobile wireless services to the entire UHF and VHF band is “a critical first step toward making this spectrum available for new

⁵¹ *Notice* at ¶ 121.

⁵² See CTIA Comments at 16-17; Verizon Comments at 58-59.

licensed wireless broadband services.”⁵³ This claim is simply untrue. The only band to which the Commission must add a fixed and mobile allocation is the resulting 600 MHz *commercial wireless* band. Since the extent of that band is not yet knowable, the Commission should hold the auction, determine the band plan for the new 600 MHz band and *then* make its allocation. Nothing requires that the allocation should be made first, let alone extend across a band that is dedicated to broadcast television operations. Any attempt to do so would signal that the Commission is interested in reclaiming the entire television band for commercial wireless services, which would contradict the repeated statements of Commission officials that they seek to preserve a healthy and strong broadcast industry.

IV. A Voluntary Auction Means That Broadcasters Who Remain Should Be Held Harmless

Other than “market-based,” no word has been used more often by the Commission, the *Notice* and commenters to describe the auction process than “voluntary.” Clearly, voluntary means that a broadcaster is free to choose – without any coercion – whether or not it wants to participate as a seller in the incentive auction. It also means that, should a broadcaster elect to remain in the business of broadcasting and not sell its station(s), it should not be harmed in any way. If the specter of the auction threatened broadcasters with harm – whether in the form of out-of-pocket costs or increased interference and reductions in coverage areas and the populations they

⁵³ CTIA Comments at 17.

currently serve – the auction would no longer be voluntary, as its operation could coerce broadcasters into participation.⁵⁴

As NAB discussed in our initial comments, the *Notice* poses at least four material threats to broadcasters who remain on the air and thus to the “voluntary” nature of the auction process. First, the *Notice* fails to acknowledge any obligation to ensure that the \$1.75 billion TV Broadcaster Relocation Fund (Fund) covers all of the broadcasters’ (and MVPDs’) out-of-pocket costs due to their forced relocation. In other words, the *Notice* proposes a regime that very likely will impose out-of-pocket costs on broadcasters for an auction they do not participate in, and from which they receive no value. Second, the *Notice* proposes to define the outer bounds of “all reasonable efforts” to preserve stations’ current coverage areas and populations served as allowing the Commission to significantly reduce the service areas of stations that remain on the air (through adding interference). The *Notice* also does not define under what conditions the Commission can add such interference, and thus millions of viewers across the country could lose access to the stations that choose to remain on the air.

⁵⁴ The irony of Competitive Carriers Association’s comments about how the Commission should approach repacking is not lost on NAB. CCA suggests that “[t]he Commission also should implement a blend of ‘carrots’ and ‘sticks’ that promote participation by broadcasters while ensuring that the Commission’s policies are not artificially propping up broadcasters in a manner that actually discourages their participation,” and that “broadcasters . . . continue to rely on regulatory policies that bolster an otherwise-flawed business model.” See Comments of the Competitive Carriers Association (CCA) in GN Docket No. 12-268 (filed Jan. 25, 2013), at 3; see *also id.* at 20. NAB, of course, disagrees with CCA’s characterization of broadcast policies. In fact, the characterization is more apt for CCA, whose *entire* policy platform relies on advocating for the government to intervene in the wireless marketplace to the benefit of its members (*e.g.*, seeking forced interoperability, forced unbundling of networks for data and voice roaming, and government-imposed limits to the amount of spectrum commercial carriers can obtain). See CCA Advocacy Agenda at <http://www.rca-usa.org/advocacy/agenda/rca-advocacy-agenda/914363>.

Third, the *Notice* takes an aggressive, unlawful and unjust position toward the treatment of stations that for some time have attempted, within the Commission's rules, to move their stations from VHF to UHF or to make essential modifications to their VHF stations. If these changes are not protected during repacking, the Commission will eliminate broadcast options for viewers who rely on free, over-the-air television, and without any reasoned justification. Fourth, the *Notice* proposes to abolish the two nationwide channels reserved for licensed wireless microphone operation that the Commission recently authorized and that are essential to the provision of news, information and entertainment services on which millions of Americans rely.

A. The Relocation Fund Should Be Treated as a Budget and Should Cover All Reasonable Broadcaster and MVPD Moving Costs

With respect to the TV Broadcaster Relocation Fund, NAB proposed that the Commission treat the \$1.75 billion in the Fund as its repacking budget. In other words, once the Commission determines how many stations it could repack for that amount (less MVPD costs), that number would serve as an input into the Commission's repacking model.⁵⁵ The *Notice*, however, does not acknowledge that Congress intended the \$1.75 billion Fund to cover *all* costs incurred by broadcasters and MVPDs as a result of repacking, thereby departing from the view generally held by most, if not

⁵⁵ In addition to treating the fund as a repacking budget, NAB suggested a process for distribution, to be administered by a third party, that would allow for timely upfront payments, while still protecting against waste, fraud and abuse. Those who commented on this issue in the initial comments largely agreed.

all, stakeholders that non-participants would be fully compensated.⁵⁶ As Harris

Corporation notes:

In choosing the phrase “shall reimburse,” the legislature unambiguously indicated that it expected the FCC to reimburse broadcasters for all costs reasonably incurred. This is consistent with the legislative history, which indicates that Congress intended that the TV Relocation Fund would be sufficient to “cover relocation costs.”⁵⁷

Indeed, while advocating for Congress to pass incentive auction legislation, Chairman Genachowski asserted that “it's essential that broadcasters be treated fairly [in the

⁵⁶ See, e.g., Comments of ABC Television Affiliates, *et al.* (Affiliate Associations) in GN Docket No. 12-268 (filed Jan. 25, 2013), at 47; Comments of Belo Corp. in GN Docket No. 12-268 (filed Jan. 25, 2013), at 19; Comments of Harris Corp. in GN Docket No. 12-268 (filed Jan. 25, 2013), at 17-18; Comments of Named State Broadcaster Associations in GN Docket No. 12-268 (filed Jan. 25, 2013), at 15; Comments of the National Religious Broadcasters in GN Docket No. 12-268 (filed Jan. 25, 2013), at 16; Comments of Sinclair Broadcasting Group in GN Docket No. 12-268 (filed Jan. 25, 2013), at 15; see *also* CEA Comments at 15 (“Congress has been clear that broadcasters are to be remunerated for voluntary relinquishment of spectrum . . .”). Many commenters also argue that all parties who incur costs as a result of the repacking should be reimbursed through the Fund. This includes less obvious costs, such those for stations that may not be relocated, but incur costs to accommodate the moves of others. See, e.g., Affiliate Associations Comments at 52-53; Belo Comments at 21. NCTA similarly argues that cable operators must be reimbursed for all reasonable costs related to repacking. NCTA Comments at 18-21. See *also* Comments of DirecTV and Dish Network in GN Docket No. 12-268 (filed Jan. 25, 2013), at 8-9. Numerous parties further raised issues regarding timing and indicated that the 18-month timeframe contemplated in the *Notice* was not long enough. See APTS Comments at 24-27; Harris Corp. Comments at 12; Comments of KLCS-TV in GN Docket No. 12-268 (filed Jan. 16, 2013), at 2; Comments of the School Board of Broward County, Florida in GN Docket No. 12-268 (filed Jan. 24, 2013), at 2; and Comments of The Walt Disney Company in GN Docket No. 12-268 (filed Jan. 25, 2013), at 38.

⁵⁷ Harris Comments at 17 (citing H.R. Rep. No. 112-399, at 131 (2012) (Conf. Rep.)).

auction process]. That means, for example, that broadcasters should be *fully* compensated for any costs.”⁵⁸

Neither the *Notice* nor any commenters offered a justification for why Congress would have established a fund to cover some unspecified portion but not all broadcaster and MVPD relocation costs, and no reasoned justification is immediately apparent. Rather, the entire structure of the statute is designed to ensure that the auction is voluntary, and thus the threat of costs incurred as a result of the auction should not factor into a station’s decision as to whether it should participate. As noted above, that cloud of uncertainty would undermine the fundamental “voluntary” nature that both Congress and the Commission assert is central to a successful and fair auction and repacking process.⁵⁹

The only serious questions raised regarding the Fund by those outside the broadcast industry concerned the appropriate estimates for the costs of relocation and the ways in which those costs should be calculated. U.S. Cellular, for example, claimed that “the Commission need not worry that the \$1.75 billion allocated for the repacking process would be insufficient . . . because. . . the costs of repacking likely will add up to

⁵⁸ Remarks of FCC Chairman Julius Genachowski at NAB Show 2011, Apr. 12, 2011 (emphasis added).

⁵⁹ See *Notice* at ¶ 3 (“Incentive auctions are a voluntary, market-based means of repurposing spectrum by encouraging licensees to voluntarily relinquish spectrum usage rights in exchange for a share of the proceeds from an auction of new licenses to use the repurposed spectrum.”).

only \$775 million.”⁶⁰ This figure is a long way from NAB’s estimate of \$1-\$4 million per station on average.⁶¹

To support its claim, U.S. Cellular cites to an attached economic analysis on repacking costs (USCC Study).⁶² The authors of the study estimate that \$350,000 of the \$950,000 cost of the transmitter included elements that would not require changing and that the remaining \$600,000 might require full or partial replacement and therefore included a cost of only \$300,000 for transmitter replacement for a full power station. At the FCC’s Broadcast Relocation Fund Workshop in June 2012, Harris Broadcast indicated many stations have been on the air for a number of years and only about 5 percent of the current transmitters are upgradeable at nominal costs (under \$100,000).⁶³ Harris estimated that 55 percent of stations would require new transmitters and indicated that the replacement cost of a new high power transmitter is approximately \$1.6 million.⁶⁴ Harris indicated that the upgrade costs for those transmitters that have supported technology would be \$300,000 to \$430,000 and about

⁶⁰ USCC Comments at 8-9.

⁶¹ See NAB Comments at 49.

⁶² See USCC Comments Appendix B, C. Bazelon, C. Jackson and G. McHenry, *An Engineering and Economic Analysis of the Prospects of Reallocating Radio Spectrum from the Broadcast Band through the Use of Voluntary Incentive Auctions*, September 19, 2011. The USCC Study was not intended as a definitive or exhaustive study on broadcaster repacking costs. Indeed, the study states that the results are “not sensitive to the cost of changing a broadcaster’s broadcast channel” and that “doubling the amount” would not change the conclusions – although such a doubling would ensure that some broadcasters would not be compensated for costs, given the size of the Fund. *Id.*

⁶³ Jay Adrick, Harris Corporation, Broadcaster Relocation Fund Workshop Expanded Presentation at 10, *available at* <http://transition.fcc.gov/presentations/06252012/jay-adrick.pdf>.

⁶⁴ *Id.* at 2, 15.

40 percent of transmitters are in this category.⁶⁵ Thus, the USCC study underestimates the transmitter replacement costs by a remarkable 367 percent.⁶⁶ This factor alone would increase the average cost of repacking from \$885,500 to \$1,685,000 per station. The USCC study also fails to include any costs for output mask filters, tower upgrades or associated tower work or temporary antennas, transmission lines and their installation.

Overall, the comments clearly show the need for additional focus on reimbursement costs and the process for distributing the funds. That said, the process for identifying costs should not create its own burden and expense. NAB disagrees, for example, with any suggestion that the Commission should require broadcasters to undertake burdensome efforts to identify existing transmit facilities and replacement equipment.⁶⁷ These efforts would be unlikely to facilitate the relocation process and would impose significant costs on broadcasters that are never even required to relocate.⁶⁸ NAB agrees, however, with suggestions that all stakeholders should have a clear understanding of what equipment and other costs will be compensated.⁶⁹

⁶⁵ *Id.* at 2, 15.

⁶⁶ This is based on the Harris estimate that 55 percent of stations would have to buy replacement transmitters, and 40 percent would be able to upgrade for \$300,000 to \$430,000. Five percent of stations were assumed to upgrade for \$75,000. This yields an average station cost for transmitters of \$1.1 million compared to the \$300,000 assumed in the USCC Study.

⁶⁷ See CTIA Comments at 36; see *also* Sprint Comments at 11-12. NAB agrees with Sprint that all parties can glean lessons from the recent experience of relocating broadcast auxiliary service (BAS), but disagrees with the proposed specific pay-out schedule. Sprint Comments at 12-13. Such matters would be appropriately discussed at the forum or workshop NAB proposes.

⁶⁸ Moreover, if the concern is the timeliness within which broadcasters relocate so the that the spectrum can be cleared for new commercial wireless licensees, the

The wide-ranging and generally constructive nature of the initial comments suggests that a focused setting where broadcasters and other stakeholders can identify expected costs would speed the process and produce fair results, as well as reasonable upfront estimates. To this end, NAB urges the Commission to convene a workshop of interested parties, at the appropriate time, to identify issues and solutions that will ultimately make the reimbursement process easier. That workshop could also address proposals such as the phased-in transition suggested by several commenters; repacking timetables to minimize both costs and disruptions for viewers;⁷⁰ and the suggested appointment of a third-party administrator for the Fund.

B. The Spectrum Act Requires That the Commission Must Make Every Reasonable Effort to Preserve a Station’s Coverage and the People It Serves

NAB’s initial comments reviewed in great detail each of the *Notice’s* three options to define the outer bounds of the Act’s “all reasonable efforts” language.⁷¹ In particular,

Commission also should look closely at how long each wireless carrier takes to deploy its licensed spectrum from the time it acquires the license (whether through auction or acquisition). The Commission should conduct an inventory of such deployment to gain a better understanding of whether there is a reasonable basis for the claim that wireless carriers will deploy immediately on the newly auctioned spectrum.

⁶⁹ See Comcast/NBC Universal Media Comments at 27-28.

⁷⁰ See Affiliate Associations Comments at Appendix A.

⁷¹ NAB Comments at 18-31. NAB agrees with Univision that one could read the *Notice’s* three “all reasonable efforts” options as being at “odds with the Congressional directive that the Commission use all reasonable efforts to ‘preserve’ the population served of each remaining station” because they presume “that existing populations will not be ‘preserved.’” Comments of Univision Communications Inc. in GN Docket No. 12-268 (filed Jan. 25, 2013) at 6. NAB assumes, however, that in most every circumstance, the FCC will preserve the coverage areas and populations served by television stations, and that the three delineated options are only designed for the exceptional circumstance. See NAB Comments at 19.

we explained why Option 1, which treats viewers as fungible, would cause great harm to viewers and broadcasters and why it runs afoul of the Spectrum Act. APTS and the Network Affiliate Associations strongly agree.⁷² We also explained why Options 2 and 3 are fatally flawed. Neither option incorporates any cap on the amount of aggregate new interference a station may receive during repacking, thus opening the door for imposing extreme hardship on broadcasters. Without a cap, this aggregate number could produce up to 10 percent new interference for a given station – a devastating result for any broadcaster.⁷³ NAB also urges the Commission to review Appendix A of APTS’s initial filing and its associated comments for a concrete example of the damage that could be wrought under Option 3.⁷⁴

The comments from the broadcast industry – beyond NAB – show general consensus that Option 2 with an aggregate interference cap of 1 percent for outlying circumstances, while not ideal is a reasonable outcome.⁷⁵ No other commenters looked seriously at the *Notice*’s three options or performed any analysis on their impact.

The suggestion from other industries that 2 percent interference is somehow *de minimis* and therefore appropriate is misguided. At the outset, the Commission has

⁷² See APTS Comments at 9-10 (“Because the first option would permit some viewers to be replaced with other viewers, the first option does not maintain the station’s population served as of February 22, 2012 throughout the coverage area or keep the current population served in its original or existing state.”); Affiliate Associations Comments at 33-37 (“The first alternative fails because it does not seek to preserve service to the same specific viewers at all . . .”).

⁷³ See NAB Comments at 30.

⁷⁴ See APTS Comments at 10.

⁷⁵ See Affiliate Associations Comments at 37 (“The imposition of such an aggregate cap will best comply with the Spectrum Act’s requirement that the Commission use “all reasonable efforts’ to preserve the population served of affected stations”); see *also* Univision Comments at 7; Belo Comments at 14.

previously determined that “an interference standard greater than 0.5 percent generally will cause a ‘substantial disruption for viewers due to interference between stations.’”⁷⁶ NAB also detailed in its initial comments how such added interference could affect a station in practice.⁷⁷ The results demonstrate that tens of thousands of viewers could be impacted with just the slightest increase in allowable interference.

U.S. Cellular argues that the 2 percent interference standard adopted for part of the DTV transition should also apply in the incentive auction and repacking of the television band. For a number of reasons, U.S. Cellular’s argument is off-base and a misunderstanding of history. First, the Commission adopted the 2 percent standard at the behest of broadcasters to provide more flexibility as the industry moved into a completely new standard. Second, that flexibility was necessary *only for the transition period* when full-power broadcasters were operating both an analog channel and a companion digital channel. It was the understanding of both the Commission and broadcasters that this necessary increase in interference was temporary and would likely be alleviated by the elimination of the analog channels after the transition. As it turned out, that is exactly what happened and in most cases, stations, especially UHF stations, were able to serve more viewers, not fewer, after the transition.

Circumstances in the incentive auction are completely different. First, broadcasters will not be upgrading to a new standard with different interference criteria. Second, broadcasters will not be operating on two channels during or after a repacking.

⁷⁶ *In the Matter of Third Periodic Review of the Commission’s Rules and Policies Affecting the Conversion To Digital Television*, Report and Order, 23 FCC Rcd 2994, ¶ 159 (rel. Dec. 31, 2007).

⁷⁷ See NAB Comments at 24-27.

Third, and perhaps most importantly, the increased interference that U.S. Cellular proposes will not be temporary, but instead will permanently eliminate television service for viewers. Any reduction in television service is not simply a function of the different propagation characteristics broadcasters will experience as they move to a new channel, as U.S. Cellular claims, but of how aggressively the Commission decides to repack the television band.

Although not taking a position on which of the three interference options the Commission should adopt, the Telecommunications Industry Association (TIA) suggests that the Commission has much greater flexibility to add interference to broadcast stations in this proceeding. According to TIA, Congress during the DTV transition allegedly “mandated” that the Commission replicate existing broadcast service areas as stations moved from analog to digital transmissions. TIA asserts that this claimed requirement is stricter than the “all reasonable efforts” charge in the Spectrum Act.⁷⁸ This recounting is incorrect. Congress *never* mandated that the Commission “replicate” service areas post-DTV transition; that directive is nowhere to be found in the Telecommunications Act of 1996. Instead, the reasonable goal of replicating analog

⁷⁸ See TIA Comments at 5-7. CEA goes even further, asserting that “the Spectrum Act prohibits the FCC from seeking to replicate existing service areas and populations in all circumstances by including the word ‘reasonable.’” CEA Comments at 32. This argument is simply wrong. Congress’s direction that the Commission should take “all reasonable efforts” to preserve stations’ coverage areas and populations served does not *preclude* the Commission from attempting to replicate coverage areas or populations served.

service areas in digital was a Commission-originated effort in 1996 and 1997 that did not arise from a Congressional mandate.⁷⁹

To support its argument, TIA provides an inapposite citation to a portion of the Communications Act that deals with the creation of the Class A television service. This section of the Communications Act was amended in 1999, two years *after* the Commission determined it would adopt a model for the DTV transition allowing stations to replicate their analog service areas.⁸⁰ While the portion of the Communications Act TIA cites includes the words “replication” and “maximization,” reading it in its proper context – *vis a vis* the preservation of low-power TV station service areas pending resolution of Class A applications – in no way supports TIA’s conclusion that this provision serves as a directive on par with Congress’s express “all reasonable efforts” mandate in the Spectrum Act.⁸¹

⁷⁹ See *In the Matter of Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, Sixth Further Notice of Proposed Rulemaking, 11 FCC Rcd 10968 at ¶¶11-14 (rel. Aug. 14, 1996) (The Commission had previously sought comment on a “service replication/maximization” concept that was proposed by the broadcast industry. In this Notice, the Commission proposed to adopt the replication concept instead of an approach that would have maximized all DTV service areas equally.). See also *In the Matter of Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, Sixth Report and Order, 12 FCC Rcd 14588 at ¶¶ 12-33 (rel. April. 21, 1997) (“We believe that providing DTV allotments that replicate the service areas of existing stations offers benefits for both viewers and broadcasters.”).

⁸⁰ See TIA Comments at 6, n.15 (citing 47 U.S.C. § 336(f)(1)(D)(i) and (ii)).

⁸¹ The portion of the Act cited by TIA falls under the subtitle “Resolution of technical problems” and it says, in part, that the Commission “shall act to preserve the service areas of low-power television licensees pending the final resolution of a Class A application. If, after granting certification of eligibility for a class A license, technical problems arise requiring an engineering solution to a full-power station’s allotted parameters or channel assignment in the digital television Table of Allotments, the Commission shall make such modifications as necessary— (i) to ensure replication of

C. The Commission Should Continue to Improve Television Service Where Necessary Up and Until the Incentive Auction and Respect Those Improvements During a Repacking

One of the most important elements of preserving a healthy and vibrant broadcast industry throughout and following the incentive auction is the fair treatment of stations that choose to remain on the air, serving their local communities. In the context of the auction, this has at least two important implications. First, because many stations rely on translators and other means to reach viewers within their licensed contours and in their Designated Market Areas (DMAs), the Commission should recognize its obligation to protect the service they provide to millions of viewers. Second, the FCC must protect station modifications made following the DTV transition, as well as modifications that broadcasters have validly attempted to make prior to the FCC's date freezing new applications for moves from VHF to UHF. Specifically, this means preserving those changes and processing the relevant applications in a timely manner.

1. The Commission Must Make All Reasonable Efforts to Preserve the Populations Served by Full-Power Stations, Including Through Translators

As discussed in detail above and in our initial comments, Section 6403(b)(2) of the Act requires the Commission to "make all reasonable efforts to preserve" the "coverage area and population served of each broadcast television licensee." Given Congress's clear intent to protect viewers' service, it would be contrary to statute for the Commission to fail to make all reasonable efforts, during any repacking of the broadcast band, to preserve the populations served by full-power stations merely because portions

the full-power digital television applicant's service area ... and (ii) to permit maximization of a full-power digital television applicant's service area." See 47 U.S.C. § 336(f)(1)(D).

of those populations may be reached via translators. The record in this proceeding confirms that television translators are essential for many full-power stations, especially in the West, to reach significant portions of the populations they serve.⁸²

As noted above, since 1956 when the Commission first determined to license television translators, through the digital television transition, the agency has consistently found that translators serve the public interest by providing valued and varied television service, particularly to isolated areas and smaller communities that would not otherwise enjoy such free service.⁸³ Consistent with the Commission's understanding of the value of translators to the public, the record here demonstrates how viewers' existing local television service – including news, weather, emergency

⁸² NAB believes that television translators providing full-power service to the populations served in a station's market must be preserved during repacking. These translators include, but are not limited to, digital replacement translators, which are licensed as part of a full-power station's facilities under the main station's call sign and cannot be transferred or assigned separately from the associated full-power facility. A number of commenters explained that protection of digital replacement translators is essential to preserving the service viewers currently receive. See, e.g., Comments of Cox Media Group in GN Docket No. 12-268 (filed Jan. 25, 2013), at 4-5; Comments of Bahakel Communications, Ltd. in GN Docket No. 12-268 (filed Jan. 25, 2013), at 3-4; Comments of WGAL Hearst Television Inc. in GN Docket No. 12-268 (filed Jan. 25, 2013), at 13-14.

⁸³ See *Amendment of the Commission's Rules and Regulations to permit the Operation of TV Translator Stations in Conjunction with the Primary Transmitter*, Report and Order, 13 Rad. Reg. (P & F) 1561, 1566 (1956) (Translator Authorization Order) (when initially authorizing translators, the FCC noted the "urgent need" for service in "isolated communities" and that translators could "be employed to bring multiple services to communities too small to support several stations"); *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, Report and Order, 19 FCC Rcd 19331, 19342 (2004) (determining to preserve TV translator stations in the "digital age," citing their "unique role in delivering over-the-air programming of TV broadcast stations to many communities otherwise unable to receive such service").

information, sports and entertainment programming – depends on stations' use of translators.

For example, KOAT-TV, an ABC affiliate, relies on a state-wide system of 31 translators to serve the Albuquerque-Santa Fe DMA. KOAT's translators cover approximately 47 percent of this geographically large DMA and serve about 285,000 television households, or approximately 39 percent of all television households in the market. Five of the station's translators provide coverage to over 23,500 Native Americans on tribal lands.⁸⁴ Station KATU(TV), an ABC affiliate, uses a system of eight translators to serve the geographically extensive Portland, Oregon DMA. KATU's translators provide over-the-air service to more than 590,000 people, reaching more than 20 percent of the television households in the 22nd largest television market in the U.S. In the East, WGEN-TV, Key West, Florida has a network of five translator stations that provide WGEN's Spanish-language programming throughout the separate Key Islands. Public television broadcasters similarly depend upon translators to reach their audiences. For example, KNPB in Reno, Nevada uses 28 translators to reach 423,000 of its 845,000 viewers, including 27 tribal communities. About 50 percent of New Mexico public television viewers (including members of the Navajo Nation) are reached by translators, and translators provide service to 69 percent of public television stations'

⁸⁴ Similarly, LIN Television has an extensive network of about 50 translators to provide over-the-air service and to deliver their signals to cable and satellite receive facilities throughout the Albuquerque DMA. See Comments of LIN Television Corporation in GN Docket No. 12-268 (filed Jan. 25, 2013), at 9. See *also* Comments of The National Translator Association in GN Docket No. 12-268 (filed Jan. 25, 2013), at Exhibit 1 (describing a system of translators bringing television service to 11 separate small communities in northeastern Colorado). In such large and mountainous areas, it is physically impossible for stations to serve viewers without the extensive use of translators.

coverage area in Wyoming.⁸⁵ Not only would over-the-air viewers be “left in the dark if translator service is lost,” but cable and satellite subscribers also would lose access to many stations because they use translators to deliver their signals to pay television providers’ receive facilities.⁸⁶ The record thus establishes beyond doubt that television broadcasters, both commercial and noncommercial, use translators extensively to serve their viewers.

Beyond making all reasonable efforts to protect populations served via full-power stations’ translators to fulfill the purpose of Section 6403(b)(2), Section 309(j) of the Communications Act further obligates the Commission to consider the effects of its auction policies on the equitable distribution of licenses and services among geographic areas.⁸⁷ It would be contrary to Section 309(j) for the Commission to pursue policies that would eliminate existing broadcast television services provided through full-power stations’ translators, thereby leading to the inequitable distribution of television services in areas of the country heavily reliant on translators.⁸⁸ In particular, the Commission should not needlessly eliminate translator service through auction and repacking

⁸⁵ See APTS Comments at 10-11 (also citing extensive use of translators by public television stations in Idaho and Utah).

⁸⁶ *Id.* at 11.

⁸⁷ See 47 U.S.C. § 309(j). Section 309(j)(6) provides that nothing in Section 309(j) or in the use of competitive bidding limits the requirements of Section 307 of the Communications Act, which directs the Commission to provide a “fair, efficient, and equitable distribution of radio service to each” of the states and communities. 47 U.S.C. § 307(b). See also Section 309(j)(4) (in designing systems of competitive bidding, the Commission must “prescribe area designations and bandwidth assignments that promote (i) an equitable distribution of licenses and services among geographic areas . . .”).

⁸⁸ In fact, the FCC specifically cited its obligation “under the Communications Act” to provide a “fair and equitable distribution of television service” when first authorizing television translators. *Translator Authorization Order*, 13 Rad. Reg. at 1564.

policies that reallocate excessive amounts of spectrum in rural and Western regions where there is no spectrum shortage.⁸⁹

Given the language of both Sections 6403(b)(2) of the Spectrum Act and 309(j) of the Communications Act, Congress cannot intend for the Commission to deprive many viewers of the broadcast television service they currently receive by failing to make reasonable efforts to preserve full-power stations' service provided to certain populations via translators. Indeed, it would be wholly *unreasonable* under the statutes, as well as arbitrary and capricious under the Administrative Procedure Act, for the Commission to repack the television band to reduce significantly stations' populations served by failing to extend protections to their translators, especially in Western and rural areas with a surfeit of spectrum.

NAB and other commenters do not agree that Section 6403(b)(5) of the Spectrum Act somehow grants unlimited discretion to the Commission to repack the television band without regard to maintaining the operations and service of television translators and low power television stations.⁹⁰ That section provides that “[n]othing in this subsection shall be construed to alter the spectrum usage rights of low-power television stations.” Contrary to the *Notice's* implication, the mere fact that translators and low power are secondary services does not mean that these stations have no rights to operate, and that language cannot be said to trump the “all reasonable efforts” directive. Certainly it is difficult to reconcile this “nothing shall alter” language of Section

⁸⁹ See Section III.A., *supra*.

⁹⁰ See *Notice* at ¶ 118.

6403(b)(5) with a position that the Commission has unfettered discretion to repack these stations out of existence.⁹¹

2. The Commission Should Continue to Assist and Protect Stations Seeking to Improve Service and That Have Complied With Commission Rules and Processes

A few years removed from the DTV transition, broadcasters are still improving digital television service. In many cases, those improvements serve to provide viewers with local television that they may have lost during the transition. These improvements are necessary so that local television remains a ubiquitous and robust service. We appreciate the Commission's continuing work with broadcasters to facilitate these improvements by, among other things, approving power increases and new translators even after passage of the Spectrum Act.

In the context of the incentive auction, however, some stations that have diligently worked to make modifications to serve their viewers are now threatened by suggestions that modifications will not be protected, whether they be technical modifications already sanctioned by the Commission or applications filed in accordance with existing rules. NAB urges the Commission to act on the 10 outstanding VHF-to-UHF petitions that were timely filed before the May 2011 freeze on such requests.⁹² The Commission should also set a date certain at some point before the incentive auction to measure what qualifies as "coverage area and population served" for

⁹¹ *Accord Affiliate Association Comments* at 56-57; *National Religious Broadcasters Comments* at 4-6.

⁹² *See Public Notice*, "Freeze on Filing of Petitions for Digital Channel Substitutions, Effective Immediately," 26 FCC Rcd 7721 (rel. May 31, 2011).

purposes of the repacking, fully accounting for necessary reception improvements made by broadcasters.⁹³

Commenters agreed with NAB that the Commission should act on the 10 remaining VHF-to-UHF petitions as quickly as possible.⁹⁴ In each of the 10 cases, allowing stations to move from a VHF to UHF channel will provide improved television service to local viewers. Commenters also agree with NAB that the Commission's *de facto* freeze on these petitions is contrary to Congressional intent and arbitrary and capricious.⁹⁵ Those commenters generally disagree with the suggestion in the *Notice* that the Commission can "exercise [its] discretion not to act" on those requests because it could compromise the Commission's ability to repack broadcast stations after the auction.⁹⁶ Congress explicitly excepted requests that were filed before May 31, 2011 from its pre-auction VHF-to-UHF prohibition.⁹⁷ As the record makes clear, this exception shows that Congress already determined that granting these 10 petitions would be consistent with the intent of the Spectrum Act and would not unduly limit the

⁹³ See Joint Comments of the Named State Broadcast Associations GN Docket No. 12-268 (filed Jan. 25, 2013), at 14 ("The State Associations also urge the Commission to protect the area and population covered, or projected to be covered, by the facilities of all full-power and Class A whether such facilities were in operation before or after the date of enactment of the Spectrum Act so long as the facilities in question, whether or not fully constructed, were the subject of a construction permit granted by the Commission before the commencement of the reverse auction process.").

⁹⁴ See Comments of Bonten Media, Inc. in GN Docket No. 12-268 (filed Jan. 25, 2013), at 2-9; Comments of Media General, Inc. in GN Docket No. 12-268 (filed Jan. 25, 2013), at 3-10.

⁹⁵ *Id.*

⁹⁶ See *Notice* at ¶ 117.

⁹⁷ Spectrum Act at § 6403(g)(1).

Commission's ability to conduct the auction.⁹⁸ Furthermore, as a practical matter, there is little reason to believe that granting these 10 VHF-to-UHF requests will compromise repacking flexibility.⁹⁹ None of the 10 stations, for example, are located in the crowded Northeast corridor. The Commission should follow Congressional intent and examine these petitions on their merits as quickly as possible.

The Commission must also provide certainty to broadcasters that improve their service in other ways – such as through power increases or interference agreements with other stations. As a baseline, there is general agreement in the record that the Commission should not read the Spectrum Act restrictively to measure broadcaster coverage areas and population served only by facilities licensed as of February 2012.¹⁰⁰ NAB and other commenters agree with the Commission that Section 6403(b)(2) does not prohibit the Commission from extending protection to facility improvements made by broadcasters after the Spectrum Act.¹⁰¹ Broadcasters that are making investments in facility upgrades in reliance on Commission decisions need certainty that the results of those investments will be respected in the repacking process. To provide this certainty,

⁹⁸ See Comments of Raycom Media, Inc. in GN Docket No. 12-268 (filed Jan. 25, 2013), at 3.

⁹⁹ Although NAB does not believe that the impending incentive auction should play a role in whether these applications are granted, we note that the *Notice* did not suggest that the Commission performed any analysis to determine how granting these 10 applications would impact the auction.

¹⁰⁰ See, e.g., Comments of Gray Television, Inc. in GN Docket No. 12-268 (filed Jan. 25, 2013), at 3; Belo Comments at 16-18; see also Comments of the New York State Broadcasters Association in GN Docket No. 12-268 (filed Jan. 25, 2013), at 22 (noting the special case of New York City broadcasters that still have construction permits for their full digital facilities and are operating under Special Temporary Authority because of issues related to the terrorist attacks on September 11, 2001).

¹⁰¹ *Notice* at ¶ 113; see also WGAL Hearst Television Comments at 8.

the Commission should establish a future “freeze” date some time just before the auction by which broadcaster service areas will be measured.¹⁰² NAB agrees with other commenters that a future freeze date is both fair to broadcasters that have invested millions of dollars to improve their signals, and in the public interest, as, in many cases, viewers are now relying on this improved reception.¹⁰³ To the extent that the Commission, through its normal review process, determines that similar service improvements are warranted up and until the auction is set to begin, it should process those applications in a timely manner. Nothing in the Spectrum Act prohibits these facility modifications.

NAB agrees with APTS that “some of the NPRM’s proposals fall short in balancing the need to preserve a vibrant, free over-the-air television service while promoting increased mobile broadband deployment.”¹⁰⁴ APTS correctly identifies that “[s]ome of these proposals could fail to make stations that are forced to move to new channels in the repacking whole, both financially and in terms of their coverage area and population served—ultimately harming viewers who depend upon these stations for unique, noncommercial programming and services.”¹⁰⁵ We urge the Commission to

¹⁰² The Commission should not set the freeze date until it has a firm date for the beginning of the auction. NAB recommends that any broadcaster that has a new licensed facility or a construction permit to modify their facility by such a date should be accounted for in the repacking process. NAB does not believe a “use it or lose it” mandate is necessary, as some facility improvements – like a distributed transmission system – can take several years to build. Nonetheless, NAB suggests the Commission may require broadcasters to declare their intent to build-out facilities according to any outstanding construction permits.

¹⁰³ See WGAL Hearst Television Comments at 8-9; Cox Comments at 8.

¹⁰⁴ APTS Comments at 3-4.

¹⁰⁵ *Id.*

bring a balanced approach to the auction and repacking process, recognizing the value of both broadband and broadcast and taking concrete steps to ensure that the broadcast industry remains healthy and vibrant.

D. Interference Free Operation of Licensed Wireless Microphones Enables Broadcasters to Better Serve Their Local Communities

As the record makes clear, licensed wireless microphones — and other Part 74 operations — are essential to electronic newsgathering (ENG) and broadcast television program production and creation. Without safeguards for these operations, broadcasters would be unable to provide on-the-scene coverage of breaking news, emergencies or political events.¹⁰⁶ Nor would they be able to properly cover sporting events, such as NFL football, MLB baseball, NASCAR or PGA golf. NAB therefore disagrees with CEA, which supports reducing the number of safe harbor channels from two to one. In particular, CEA gives no explanation how licensed communications and wireless microphone operations can still be protected from harmful interference.¹⁰⁷ NAB also disagrees with commenters calling for elimination of both safe harbor channels entirely.¹⁰⁸ To safeguard the important services enabled by licensed wireless microphones and other Part 74 operations, the Commission should preserve the two safe harbor channels that currently protect these operations from interference caused

¹⁰⁶ For example, news organizations used hundreds of frequencies (over 108 MHz of bandwidth, spread over 25 channels) to support their coverage of the recent Presidential inauguration.

¹⁰⁷ See CEA Comments at 5 (urging the Commission to “open one of the two TV channels currently reserved to wireless microphones for general unlicensed use”); *id.* at 28.

¹⁰⁸ See, e.g., Comments of Motorola Mobility LLC (“Motorola”) in GN Docket No. 12-268 (Jan. 25, 2013), at 14-15 and Comments of the Wireless Internet Service Providers Association (“WISPA”) in GN Docket No. 12-268 (Jan. 25, 2013), at 17.

by unlicensed TV band devices.¹⁰⁹ The two reserved channels remain the best means to ensure continued viewer access to fast breaking news events, emergency journalism and other events covered by broadcasters through use of unscheduled ENG operations.

NAB reiterates its previous support for expansion of Part 74 licensing eligibility to allow theaters, live entertainment and music venues, government bodies, and houses of worship to license their wireless microphone use (subject to restricting unlicensed wireless microphone operations in the television band, to avoid additional spectrum congestion and interference).¹¹⁰

NAB further urges the Commission not to mandate a transition to digital wireless microphones at this time. Latency, interference reduction, and other factors mean that digital wireless microphone technology is little or no more efficient than analog. A mandatory transition to digital technology also would strand the investments that broadcasters made in new analog wireless microphone equipment when the Commission required broadcasters to vacate channels 52-69.¹¹¹

¹⁰⁹ NAB also suggests ways to make the TV white space rules and database work more efficiently by ensuring that registrations and other changes are shared in real- or near real-time among the database administrators, as well as by requiring unlicensed white space devices to check the database more frequently (*e.g.*, every twenty minutes, instead of every 24 hours).

¹¹⁰ Live entertainment venues would include amusement and theme parks and other large recreational facilities.

¹¹¹ For a more detailed discussion of NAB's positions regarding wireless microphones, see Reply Comments of NAB in WT Docket Nos. 08-166 and 08-167 and ET Docket No. 10-24 (filed March 12, 2013).

V. The Commission Should Aim to Minimize Repacking to Protect Those Most Vulnerable to Lost Free, Over-The-Air Television Service

The digital television transition showed that traditionally underserved Americans – people of color, residents and citizens for whom English is not their first language, and lower income individuals and families – rely very heavily on the news, information and entertainment provided by free, over-the-air television. It is therefore surprising and concerning that the *Notice* makes literally no mention of the impact certain key repacking decisions will have on those communities for whom over-the-air television is critical. The fact is, for every station the Commission repacks, and for every small percentage of interference added to the service of stations that remain on the air following the auction, some viewers *will altogether lose service to those stations*. This process is therefore fundamentally different from the DTV transition, where a converter box and a rescan could reconnect a Latino viewer to Univision in Los Angeles. Here, if the Commission repacks too aggressively, and if the Commission gives little meaning to the “all reasonable efforts” language to preserve the coverage area and population served of stations across the country, millions of Americans, and primarily those of color, will find themselves without the essential television services they rely on every day.

When addressing consumer concerns, the *Notice* focuses almost exclusively on those of commercial wireless services. If you are an AT&T or Verizon customer, the Commission is quite concerned about your dropped calls or “pinwheels” when you

attempt to access the Internet.¹¹² And the *Notice* appears to ascribe this not to technology or the fact that a great deal of the 600-plus megahertz of spectrum held by the wireless industry is not yet built out, but to the need for more spectrum (especially from broadcasters). The *Notice*, however, makes no mention of the consequences of key decisions in the Commission's repacking methodology to the millions of Americans who rely on free, over-the-air television.¹¹³

Despite claims to the contrary,¹¹⁴ free television received over-the-air (via an antenna) is still a critical service for the American people, an essential backbone of our communications system with no comparable substitute providing free news, public affairs, weather, sports, and emergency information to millions of households that cannot afford or would rather not pay for expensive television services like cable and satellite. And, as the data make very clear, minority groups and low-income households rely disproportionately on over-the-air TV, and stand, as a result, to bear the brunt of the negative effects of a repacking should the Commission unnecessarily restrict the broadcasting service.

¹¹² *Notice* at ¶ 4; See also Statement of Chairman Julius Genachowski, "Re: Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions," Sept. 28, 2012, at 2.

¹¹³ The *Notice*'s only discussion of television consumers is in the context of "consumer education"; namely, how to do outreach to consumers to help them rescan their televisions to find stations that have moved as a result of repacking. See, e.g., *Notice* at ¶ 9 ("We also seek comment on what kind of outreach efforts the Commission should undertake in order to ensure an orderly transition and minimize disruptions in service to consumers."); *Notice* at ¶¶ 330-32. The *Notice* does not discuss, however, the exponentially greater impact on viewers if it fails to minimize repacking or adds interference to television stations that remain on the air.

¹¹⁴ *Notice* at ¶ 14 (asserting that television is in decline due to other video offerings). See also National Broadband Plan at 89 ("Over-the-air broadcast television ... faces challenging long-term trends.").

The current data show that nearly 54 million Americans live in households that rely exclusively on over-the-air (OTA) television, and certainly many millions more rely on their local broadcast stations accessed via cable, satellite or telco video services.¹¹⁵ Roughly the same number of Americans rely exclusively on OTA television as that subscribe to Sprint wireless services, and significantly more than that subscribe to T-Mobile.¹¹⁶ The notion that over-the-air television is a relic of the past and quickly dying is belied by the very large and growing number of Americans that look to local OTA broadcasting as their primary source of news and entertainment. And this is especially true for racial and ethnic minorities. As shown by the chart below, African Americans, Asian Americans and Latinos all watch television via an antenna at rates much higher than the rest of the population.

¹¹⁵ GfK-Knowledge Networks, *Home Technology Monitor 2012 Ownership Survey and Trend Report* (Spring 2012-March 2012) (“*Home Technology Monitor Survey*”). See also Comments of the National Association of Broadcasters in MB Docket No. 12-203 at 2 (filed Sept. 10, 2012).

¹¹⁶ According to a Sprint Nextel news release from Oct. 25, 2012, Sprint Nextel’s wireless consumers total 56 million, including more than 15 million prepaid subscribers and more than 8 million wholesale and affiliate subscribers. T-Mobile, meanwhile, reported 33.3 million subscribers in its third quarter 2012 financial statement.

OTA Only Households		2012*
% of OTA only US Households		17.8%
Number of OTA only US Households		20.7 Million
Number of OTA only US Viewers		53.8 Million
Race/Ethnicity		% of OTA Only within minority group
African-American Homes		23%
Asian Homes		28%
Hispanic Homes		26%
Spanish-Speaking Hispanic Homes		33%
<i>*Source: GfK-Knowledge Networks Home Technology Monitor survey, Spring 2012</i>		

For households where Spanish is the preferred language, *one-third* rely exclusively on over-the-air television. In Houston, for example, Nielsen reports that 41 percent of the households tune into Univision and 55 percent of the households tune into UniMás exclusively over-the-air.¹¹⁷ In Dallas and Phoenix, the numbers are even higher. In Dallas, 57 percent of Univision’s viewers access it over-the-air, and in Phoenix, the number is 65 percent.¹¹⁸ A shifted or diminished service area of a local

¹¹⁷ Univision Comments at 4 (citing Nielsen, Local Custom Toolbox, Nielsen Station Index Impressions (Nov. 2012)); Nielsen Local Television Market Universe Estimates: Hispanic or Latino TV Homes Estimates as of January 1, 2013). As Univision notes, “Hispanic viewers would be at a unique disadvantage if the repacking process diminishes Spanish-language broadcasters’ ability to provide their valuable over-the-air television service to the public. These viewers rely disproportionately on over-the-air television as their primary source for news, public affairs, entertainment and sports programming, and emergency alerts.” Univision Comments at 3-4.

¹¹⁸ *Id.*

station that serves a niche constituency could greatly affect these communities.¹¹⁹ The Commission must consider such impacts as it devises a repacking plan.

Another group to consider is lower income households.¹²⁰ Roughly 26 percent of television households with an annual income below \$30,000 are broadcast-only households.¹²¹ In contrast, only 11 percent of households with incomes exceeding \$75,000 depend exclusively on over-the-air broadcasting. These numbers make sense. With average cable and satellite TV bills now exceeding \$80 for TV service alone, households that may be struggling to put food on the table are unlikely to splurge for a luxury like pay TV.¹²² To the extent that television is considered a necessity, and it clearly is during times of severe weather and other emergencies, free over-the-air television is a vital safety net.

The bottom line is that the Commission should consider thoroughly the impact of its repacking approach to OTA television viewers. Millions of Americans still rely exclusively on this service. Millions of Americans who are of color. Millions of Americans who speak Spanish, French, Chinese, Korean and other languages. And

¹¹⁹ Additionally, according to a recent report, 33 percent of programming carried on low-power television stations is broadcast in a foreign language. See SNL Kagan, *2013 Television Database*, Quarter 1 release, February 2013.

¹²⁰ See NAB Comments in MB Docket No. 12-203 (filed Sept. 10, 2012), at 3.

¹²¹ See *GfK-Knowledge Networks Home Technology Monitor survey, Spring 2012*. This is an increase from 23 percent in 2011. See NAB Comments in MB Docket No. 12-203 (filed Sept. 10, 2012), at 3.

¹²² See NPD Group Press Release, "Pay-TV bills continue to increase by 6 percent, year-over-year, as consumer-spending power remains flat," April 10, 2012, available at: https://www.npd.com/wps/portal/npd/us/news/press-releases/pr_120410/. ("[P]ay TV monthly rates have also grown an average of 6 percent per year, even as consumer household income has remained essentially flat. If nothing changes, NPD expects the average pay-TV bill to reach \$123 by the year 2015 and \$200 by 2020.").

millions of Americans who are lower income, among others. The way in which the Commission approaches repacking will have a definite and concrete impact on each of these groups that make up the fabric of our nation.¹²³ While at the conclusion of the auction a wireless customer will have no idea whether her provider added 5 or 10 megahertz to its stockpile, there is no doubt that a person who relies on free, over-the-air television will know when the station(s) on which she relies have been repacked and are now no longer available to her.

VI. The Commission Should Ensure That Its Next Steps in This Process Are Open and Transparent, and Should Seek Additional Input on Critical Topics

Commissioner McDowell, who has served in that capacity both during a significant wireless auction and during the DTV transition, well understands the complexity and challenges ahead as we work together to give the incentive auction its best chance for success. In a statement accompanying his approval of the *Notice*, Commissioner McDowell stated that this proceeding is “literally . . . the most complex spectrum auction in world history” and that it might require “undertaking a further notice and comment.”¹²⁴ NAB believes that the opening round of comments make abundantly clear that a number of issues require further refinement and public comment as the

¹²³ See Comments of the National Hispanic Media Coalition (NHMC) in GN Docket No. 12-268 (Jan. 25, 2013), at 1-3 (“Many in the Latino community rely on OTA television service to access important information. The penetration disparity is partially due to cost – OTA television service is free while mobile broadband service can cost hundreds to thousands of dollars per year.”); see also Comments of The Leadership Conference on Civil and Human Rights (LCCR) in GN Docket No. 12-268 (Jan. 25, 2013) (“Over-the air television is a key source of news, community information, and emergency warnings for Leadership Conference communities, including low-income families, people with disabilities, seniors, and those for whom English is not their primary language.”).

¹²⁴ Statement of Commissioner Robert M. McDowell, “Re: Incentive Auction NPRM,” Sept. 28, 2012.

Commission moves towards a report and order. Below, NAB identifies at least four critical areas that require further dialogue and public input on the record before the Commission can produce a report and order governing the auction and repacking process.

First, the Commission must put out for public review and comments its underlying assumptions and methodologies for its repacking plan. Moreover, it must release its repacking software once it is complete and give stakeholders ample time to evaluate and test it.¹²⁵ As NAB noted in its initial comments, the Commission had originally touted an initial model – the “Allotment Optimization Model” – that it used to convince Congress that incentive auctions could work.¹²⁶ The *Notice* indicates that the Commission has since set aside that repacking model and is working on a new one.¹²⁷ Once that model is complete, the Commission should release it for public testing and make the software and the appropriate documentation widely available for independent evaluation upon request. NAB believes any such testing will require three-to-four months to properly evaluate the repacking software.

Second, as NAB noted in its initial comments, the Commission must seriously engage with Canada and Mexico to forge a realistic path toward completing a new agreement with both countries allowing it to repack broadcasters and operate

¹²⁵ See *Ex parte* letter from Jennifer A. Johnson, on behalf of NBC Television Affiliates in GN Docket No. 12-268 (filed Jan. 28, 2013), at 2 (“The FCC’s repacking software needs to be tested and put out for comment. As the DTV transition showed, predictive models are not always accurate and if errors result in service losses, the public will be harmed.”).

¹²⁶ NAB Comments at 17.

¹²⁷ *Notice* at ¶¶ 49-50.

commercial wireless networks in the 600 MHz band in the border areas.¹²⁸ The Commission has said very little publicly about its attempts, if any, to coordinate with our neighbors, and thus last week NAB submitted in the record a five-point proposal for international coordination.¹²⁹ Again, NAB agrees with CEA's recommendation that the Commission immediately establish a working group to assist the Commission in solving this challenging problem.¹³⁰ In addition, we urge the Commission to periodically update affected industries and the public on its progress.

Third, the Commission, following these reply comments, should ask for additional, specific comment on its revised band plan. The record to date shows that the band plan issues are very challenging and that the Commission's initial proposal contained serious flaws. Given that the band plan is heavily dependent on engineering, the Commission should submit its revised band plan for public comment to take advantage of the extensive engineering resources of the technology, telecommunications and media industries. There is no downside to opening another round of comment; indeed, it can only increase Congressional, stakeholder and public confidence that the Commission is properly focused on getting the auction right rather than simply done.

¹²⁸ See New York State Broadcasters Association Comments at 14 ("Reallocating substantial amounts of spectrum while continuing to protect existing and future Canadian service even in the channels remaining for television may leave little room in many upstate markets for television service."); see *also* Cox Comments at 9 ("Both the Commission and broadcasters learned during the DTV transition that frequency coordination issues can lead to substantial delays in authorizing and constructing new TV stations – in some situations as much as eight years.").

¹²⁹ NAB International Coordination Letter (March 7, 2013).

¹³⁰ CEA Comments at 33.

Fourth, NAB recommends that the Commission hold additional workshops or create a working group to address the myriad difficult and novel issues involved in administering the TV Broadcaster Relocation Fund. As is clear from the many significant questions raised in the *Notice* and in the initial comments from broadcasters, the cable industry and the DBS industry, a number of critical open questions remain. The resolution of many of these important practical issues is better achieved through a dialogue, rather than a traditional notice and comment process.

VII. Conclusion

NAB appreciates the complexity associated with attempting this first-in-the-world incentive auction. We have dedicated our engineering, economic and legal resources to help the Commission make the auction a success and to ensure a strong, healthy and vibrant future for broadcasting. Where we have identified challenges – whether it be with the band plan, auction design or repacking – we have also proposed concrete solutions designed to achieve Congress’s objectives and to move the incentive auction process forward as expeditiously as possible. We encourage the Commission to be as open and transparent as possible and to work with industry and the public on the complicated and challenging issues inherent in this unique endeavor.

Respectfully submitted,

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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