Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Unlicensed Operation in the TV Broadcast Bands	)	ET Docket No. 04-186
	)	
Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band	)	ET Docket No. 02-380
	)	

To: Office of the Secretary,
ATTN: The Commission

COMMENTS OF ION MEDIA NETWORKS

ION Media Networks ("ION"), by its attorneys, submits these comments in response to the Commission's *Further Notice* in the above-captioned proceeding.[1] Through subsidiaries, ION owns 57 commercial television stations and 13 LPTV and television translator stations licensed to various-sized communities throughout the United States, and it broadcasts on the spectrum that would be shared with new "TV band devices." ION supports the Commission's decisions in the *Further Notice* to protect viewers of free, over-the-air broadcast television service and urges the Commission to adhere to its reasonably careful approach if it introduces fixed TV band devices.

I. THE COMMISSION SHOULD TEST FIXED TV BAND DEVICES EXTENSIVELY PRIOR TO ANY INTRODUCTION TO ENSURE THE PROTECTION OF TELEVISION VIEWERS.

If the Commission determines to introduce fixed TV band devices after the end of the DTV transition, then it must use the time remaining for extensive testing of the devices to ensure

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[1] Unlicensed Operation in the TV Broadcast Bands, ET Docket Nos. 04-186, 02-380, *First Report and Order and Further Notice of Proposed Rule Making*, FCC 06-156 (rel. Oct. 18, 2006) ("*Further Notice*").

that "devices will protect incumbent radio services from harmful interference."[2] As the Commission acknowledged, television spectrum is in a state of flux and the disruption of marketing TV band devices during the transition outweighs any benefits that might exist.[3] The Commission further recognized that it would need to use at least the remaining transition period to conduct extensive testing to ensure that the adopted standards would protect viewers.[4] The Commission went on to conclude that it initially would only authorize fixed TV band devices given the greater risk of harmful interference that personal/portable devices pose.[5]

ION supports these reasonably careful decisions and urges the Commission to adhere to them. The Commission explicitly should allow for verification of its testing so that interested parties can draw reasonable conclusions about the prospects for harm to the public rather than guess about the sufficiency of proposed standards. Focusing on fixed devices first is consistent with the Commission's recognition that "it is easier to protect incumbent operations in the TV bands…when devices are limited to fixed operations,"[6] especially given the "complex and novel sharing issues presented here."[7] As the Commission further notes, IEEE Working Group 802.22 – with expert participation from a variety of industries – is developing standards for fixed TV band devices.[8] If the Commission decides to allow the introduction of fixed TV band devices, then it should follow the recommendations of the IEEE Working Group 802.22 and prohibit co- and adjacent-channel operation inside a television station's protected contour and require

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[2] *Further Notice*, ¶ 15.

[3] *Id.* ¶ 22.

[4] *Id.*, ¶¶ 3, 15.

[5] *Id.*, ¶ 18.

[6] *Id.*, ¶ 17.

[7] *Id.*, ¶ 15.

[8] *Id.*, ¶ 18.

reliance upon a geolocation system (and not frequency sensing) to ensure that devices do not operate on prohibited channels.[9]

ION opposes those demanding the introduction of TV band devices without adequate testing. Such proponents reflect a disregard for the public interest and embrace a business model that is indifferent to whether TV band devices harm viewers. As proponents surely recognize, their resistance to testing creates reasonable suspicions that TV band devices are incapable of protecting viewers. ION accordingly urges the Commission to continue to resist efforts to dilute or degrade its testing of TV band devices. TV band devices, as the Commission recognizes, have the potential for "ubiquitous and uncontrolled deployment,"[10] so, if problems arise, interference would be pervasive. It is critical to remember that if the Commission by its actions unintentionally permits the broad introduction of interference-causing TV band devices, over-the-air broadcast television service cannot be restored.

The Commission accordingly should adhere to its traditional reliance upon thoroughly tested design constraints – just as Congress long ago directed when it empowered the Commission to "deal with the interference at its root source" and shift from "an after-the-fact approach to controlling interference."[11] Even if the Commission must postpone the implementation date beyond February 2009, it should prohibit the marketing of TV band devices until it absolutely has ensured that "devices will protect incumbent radio services from harmful interference."[12] The Commission must not sacrifice its commitment to interference protection

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[9] *See Ex Parte* Presentation of IEEE 802.22, ET Docket No. 04-186 (filed Oct. 3, 2005).

[10] *Notice of Proposed Rule Making* in ET Docket Nos. 02-380 and 04-186, 19 FCC Rcd 10018, ¶ 21 (2004).

[11] S. Rep. No. 90-1276 (1968), *reprinted in* USCCAN 2486, 2488, reporting enactment of 47 U.S.C. § 302(a).

[12] *Further Notice*, ¶ 15.

simply for some to gain an expedited return on their investment dollars. If proponents of TV band devices want to get their products to the market as quickly as possible, they should invest their time and capital in creating devices that demonstrably and absolutely will protect television viewers.

II. THE COMMISSION SHOULD PROCEED CAUTIOUSLY WHEN CRAFTING TV BAND DEVICE REGULATIONS.

In adopting standards for the sophisticated band-sharing devices, ION urges the Commission to remain cognizant of a number of aspects that have a direct bearing on the prevention of interference to viewers of free, over-the-air broadcast television:

- The *Further Notice* appears to rely heavily on the standards adopted for 5 GHz U-NII. There are important differences, however, as the Commission concedes, between these operations and those in the TV band (*e.g.*, "power levels, modulation, required interference protection levels, propagation losses, antenna heights, and receiver locations").[13]

- The digital "cliff effect" means that DTV receivers either work or they don't. There is no in-between. Viewers with inoperable receivers accordingly will experience significant frustration and have great difficulty identifying the source of any interference problems, so the Commission should absolutely ensure that harmful interference does not occur.

- There are numerous low power television stations and television translators that residents in rural areas rely upon. In no way should the Commission subordinate these viewers to users of TV band devices. The Commission should make it an explicit point of its device testing to account for low power television service and be clear that this service always will have superior rights to TV band devices.

[13] *Id.*, ¶ 34.

III. THE COMMISSION SHOULD NOT ALLOW THIS PROCEEDING TO DELAY THE ESTABLISHMENT OF DTS RULES.

The Commission should complete its rulemaking regarding Distributed Transmission Systems ("DTS")[14] so that broadcasters (and not just proponents of TV band device) may begin taking full and equal advantage of the benefits that digital technology offers. Proponents of TV band devices are using this instant proceeding to express concern to the Commission that allowing broadcast television stations to expand or modify service could reduce the spectrum allowed for TV band devices.[15] If proponents are concerned about this ***marginal*** expansion on spectrum ***already*** in use, it strongly suggests that TV band devices need much more spectrum than proponents are willing to admit – and justifies broadcasters' concerns about the threat of interference from these devices.

The Commission should complete the DTS rulemaking as soon as possible so that all interested parties have sufficient certainty to proceed with their development plans. DTS has the potential to revitalize over-the-air television broadcasting by enhancing existing service, improving receiver reliability, and enabling and speeding the development of innovative receivers at lower prices. The Commission should not entangle the DTS proceeding with this instant one or otherwise allow this proceeding to delay the establishment of DTS rules. More generally, the Commission should make it abundantly clear that it will not prevent the provision

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[14] Digital Television Distribution Transmission System Technologies, *Clarification Order and Notice of Proposed Rulemaking*, 20 FCC Rcd 17797 (2005).

[15] *See* Letter from J.H. Snider, Research Director, *New America Foundation*, to Marlene H. Dortch, Secretary, *FCC*, MM Docket No. 87-268 and ET Docket No. 04-186 (Jan. 25, 3007).

of free, over-the-air broadcast television service to those who cannot yet receive it simply to accommodate TV band devices.[16]

IV. TO BEST ENSURE THAT VIEWERS ARE NOT HARMED, THE COMMISSION SHOULD INTRODUCE TV BAND DEVICES ON A LICENSED BASIS.

ION urges the Commission to regulate TV band devices on a licensed basis on all vacant channels. The Commission acknowledged that the TV band devices present "complex and novel sharing issues,"[17] and ION believes their operation poses significant interference risks. A licensed regime accordingly would be better suited for resolving the interference problems that inevitably would arise from the operation of the sophisticated band-sharing devices. The Commission notes that parties may more easily and quickly resolve interference problems and balance competing uses under a licensing regime.[18] With less ability to externalize problems, new licensees would have a much stronger incentive to avoid causing harmful interference and to act in the public interest. Providers would have the proper and necessary incentive to ensure that devices are functional, compliant, and quickly available to the public.

ION believes that an unlicensed regime poses serious problems. A decision to place unlicensed devices into the band essentially would be irreversible, and the incentive and ability to innovate in the band will diminish rapidly given that no party can prevent overcrowding.[19] Furthermore, the government henceforth would be unable to auction a valuable public resource.

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[16] The Commission traditionally has sought to extend broadcast service to those who cannot receive it. *See, e.g.*, *The Suburban Community Policy, the Berwick Doctrine, and the De Facto Reallocation Policy*, 56 Rad. Reg. 2d (P&F) 835, ¶ 17 (1984) ("Section 307(b) by its terms encourages applicants to provide transmission service to underserved communities").

[17] *Further Notice*, ¶ 15.

[18] *Id.*, ¶ 30.

[19] *See generally*, Garrett Hardin, *The Tragedy of the Commons*, SCIENCE 162, 1243-1248 (1968). The overcrowding also would increase the risk of interference to viewers.

Moreover, unlicensed use largely would be consumer-based and widely dispersed, making FCC enforcement extremely difficult. Most of all, placing unlicensed band-sharing devices in physical proximity to ubiquitous receivers of an indisputably critical licensed service poses unnecessary risks that far outweigh any supposed benefits (*e.g.*, better performance, cheaper costs, better suited for rural service) – benefits which the Commission in any event and all likelihood could attain more easily under a licensed regime.

CONCLUSION

ION supports the *Further Notice*'s deliberate approach to introducing TV band devices and urges the Commission not to abandon viewers of free, over-the-air broadcast television. The Commission should conduct extensive tests to ensure that viewers are protected, and, if the Commission determines to introduce fixed devices, it should follow the recommendations of IEEE Working Group 802.22. ION believes that a licensed regime offers the best means to protect viewers from interference that may be caused by these "complex and novel" band-sharing devices. Most of all, ION urges the Commission in this proceeding to continue to ensure that viewers of free, over-the-air broadcast television service are protected now and in the future.

Respectfully submitted,

ION MEDIA NETWORKS

/s/

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