

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

In the Matter of)	
)	
National Association of Broadcasters)	Docket No. _____
Petition to Amend Sections 47 C.F.R 15.711(b))	
and 47 C.F.R 15.717)	RM - 11745
)	
Regarding Changes to Certain Rules for)	
Unlicensed Operations in the Television)	
Bands, Repurposed 600 MHz Band, 600 MHz)	
Guard Bands and Duplex Gap and Channel 37)	

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

The ABC Television Affiliates Association, the CBS Television Network Affiliates Association, the FBC Television Affiliates Association, and the NBC Television Affiliates (together, the “Affiliates Associations”) hereby submit these comments in response to the Public Notice, released April 1, 2015, in the above-captioned proceeding.¹

¹ The ABC Television Affiliates Association is a non-profit trade association whose members consist of local television broadcast stations throughout the country that are each affiliated with the ABC television network. The CBS Television Network Affiliates Association represents almost two-hundred independently-owned and operated television stations that are affiliated with the CBS Television Network. The FBC Television Affiliates Association is a non-profit trade association whose members consist of local television broadcast stations located throughout the country that are affiliated with the Fox television network. The NBC Television Affiliates is an association of broadcast television stations that are affiliated with the NBC Television Network. Members of the NBC Television Affiliates operate approximately 225 stations.

I. NAB Raises Serious Concerns About the Ability of the TVWS Database Regime to Protect Incumbent Licensed Services

In its petition for rulemaking,² NAB raises serious and legitimate concerns that the basic structure of the television white spaces (“TVWS”) system does not provide broadcasters, TV viewers and other licensed users as much protection as it should or can from harmful interference caused by unlicensed device operation in the TV band. Because of these concerns, the Affiliates Associations strongly encourage the Commission to correct the systemic design flaws NAB has identified now before the TVWS market more fully develops. Specifically, the Affiliates Associations agree with NAB that the Commission should amend Section 15.711(b) and 15.717 of its rules to require geolocation capability in all TVWS devices and to “create a workable enforcement regime that requires automatic checks of information accuracy at input, establishes periodic audits and reporting to the Commission and imposes responsibility on database administrators who fail to correct false or inaccurate information.”³ The Affiliates Associations agree with NAB that these solutions are relatively straightforward, simple and not cost-prohibitive. The Affiliates Associations encourage the Commission to adopt them quickly.

It is beyond dispute that unlicensed devices operating in a band on a shared basis should not cause harmful interference to licensed services. The Commission developed and designed the TVWS rules based on the novel and untested concept of a database permission system that would provide unlicensed device operators immediate information on when and where they could operate to ensure interference-free operation. By all accounts, the information contained in the various TVWS databases regarding the location of licensed services is accurate.

² See National Association of Broadcasters, Emergency Motion for Suspension of Operations and Petition for Rulemaking (filed Mar. 19, 2015) (“NAB Petition”).

³ NAB Petition at 3.

However, accurate data regarding licensed services is only half of the equation. In order to ensure interference-free operation, all of the information provided by unlicensed operators must also be accurate and complete. As NAB's petition makes clear, this is not currently the case. Press reports indicate that the Commission has made efforts to clean up inaccurate and/or false data in the TVWS database, as it currently stands.⁴ The Affiliates Associations commend the Commission's effort. However, as NAB's petition explains, current inaccuracies in the database are indicative of a larger problem that will continue to plague the database until the Commission changes its rules.

Millions of Americans rely on over-the-air television for everything from news, weather and emergency information to sports and entertainment programming. Millions more rely on cable delivery of local television that is relayed from an over-the-air signal. It is one of the core functions of the Commission to ensure interference-free operation between the various services, and, crucial to this proceeding, establish very clear rules that prevent secondary services from interfering with, and diminishing the value of, licensed operations.

TVWS advocates have argued recently that NAB's petition is nothing more than "huffing and puffing" and that there has not been "a single instance of harmful interference from unlicensed devices."⁵ Such a dismissal is cursory at best, but, more importantly, fails to address the core flaw in the system. *First*, viewers who are unable to receive a signal may have no idea if or how they are receiving interference.⁶ The Commission has never authorized a system that

⁴ See Howard Buskirk, "Problems with TV White Spaces Database Are Being Addressed, FCC's Top Engineer Says," COMMUNICATIONS DAILY (Apr. 20, 2015).

⁵ *Id.* (quoting Michael Calabrese, director of New America Foundation's Wireless Future Project).

⁶ A lack of demonstrable interference complaints may also be due to the fact that it is not possible for a consumer to determine whether loss of over-the-air DTV reception is due to white space interference, other interference, the station being temporarily off the air, or some other

is likely to cause interference simply because there is no pending formal complaint of interference.

Second, the number of TVWS devices is essentially *de minimis* today. Thus, it is hardly surprising that a handful of devices has yet to cause widespread interference; this merely reflects the paucity of operating devices in the TV band. However, if the market ever expands, as TVWS proponents repeatedly predict, inaccurate entries in the database will inevitably cause harmful interference to licensed services. Indeed, if TVWS devices ever do live up to their oft-heralded potential, that interference would become more widespread and frequent than the Commission could possibly police.

Third, the underlying problem is that users can—and because of the lack of channels in many markets are incited to—falsify location and other data. The current system can be cleaned up every single day, but it will still be re-populated with inaccurate data as users seek to utilize their devices in otherwise congested markets.

Finally, if, as the Commission has proposed, some television stations are repacked in the 600 MHz band following the incentive spectrum auction, such stations will be particularly susceptible to users of unlicensed devices seeking ways to thwart the system, because such stations will appear to be anomalies in their space, thereby inverting the perception of which service (licensed or unlicensed) is entitled to protection.

For these reasons, broadcasters are rightfully concerned that the TVWS system is fundamentally flawed and needs correction before the Commission further liberalizes interference protections in the band.

source. Nonetheless, the FCC's complaint data show hundreds of complaints of television interference, none of which were apparently investigated. So any claim of no interference complaints is thin, at best.

II. NAB's Petition Shows That Professional Installation Is Unworkable, and the Commission, Instead, Should Mandate Geolocation Capability for All TVWS Devices

TVWS proponents' rhetoric concerning the lack of widespread interference to date is nothing but an obvious attempt to distract the Commission from the settled fact that TVWS devices can and will cause harmful interference if they are operating on occupied channels. This is why the Commission required significant separation distances to protect licensed broadcast television operations from TVWS operations in the first place.⁷

For the TVWS database to work, and to ensure unlicensed operations do not cause interference to licensed services, the location information of every unlicensed device included in the database must be accurate. Indeed, of all the data required to be input into the TVWS database before unlicensed device operation can begin, device location information is undoubtedly the most critical. And yet, as NAB's petition demonstrates, the Commission's current rules include what amounts to a gaping loophole that allows users of fixed devices to set the location of the device anywhere in the country.⁸ A user setting up a device in midtown Manhattan, for example, can tell the database the device is actually located in a cornfield in Iowa. The database, depending on the quality of the data inputted, would, in that case, return to the device operator a wide list of available channels—even though most of those channels would not be open to the operator if they had included accurate location information for Manhattan. If one of the available channels is actually occupied or adjacent to an occupied channel in Manhattan, the device will cause harmful interference to licensed operations, including, in

⁷ See *Unlicensed Operation in the TV Broadcast Bands*, Second Report and Order and Memorandum Opinion and Order, 23 FCC Rcd 16807, ¶ 181 (2008) (a transmit antenna operating at 30 meters and at 4 watts could cause co-channel interference at a distance of 14.4 kilometers).

⁸ See NAB Petition at 10-11.

midtown Manhattan, hundreds of wireless microphones that are also operating within the TV band.

The Commission's rules stipulate that the geographic coordinates of fixed devices that do not include built-in geolocation capability must be determined by a "professional installer."⁹ But neither the rules nor the Commission has defined who qualifies to be a "professional installer." As NAB's petition points out, not only has a class of TVWS professional installers not developed, there is absolutely nothing to prevent anyone that purchases a fixed device from installing the device themselves, especially because the devices can be purchased online and directly from manufacturers. To be sure, for would-be amateur TVWS operators, the devices currently available are very expensive. But, as the market develops, and especially if the Commission adopts the proposal in its recent TVWS proceeding to allow for lower-power fixed devices that operate in a manner similar to mobile TVWS devices,¹⁰ the costs will undoubtedly drop significantly, opening the market to a host of new operators with no real oversight by the Commission.

The fix to the problem is simple and inexpensive—close the "professional installer" loophole and require every TVWS device to include automatic geolocation capability. By including a GPS chip or similar geolocation mechanism in every device (and not just personal portable ones), the task of inputting the device's location information into the TVWS database will be seamless, automatic, and accurate. The Affiliates Associations agree with NAB that "there is no logical reason to not require geolocation capability in every fixed device."¹¹

⁹ 47 C.F.R. § 15.711(b).

¹⁰ See Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37, *Notice of Proposed Rulemaking*, FCC 14-144 (released Sept. 30, 2014), at ¶¶ 39-43.

¹¹ NAB Petition at 14.

GPS or other geolocation mechanisms are widely available and demonstrably low-priced. There is also no reason to believe that requiring geolocation capability in all devices will depress the market for TVWS devices—nor will it make it more difficult to install or operate the devices. The Affiliates Associations strongly encourage the Commission to update its rules in this minor way to help ensure the harmonious existence of licensed and unlicensed operations in the TV band.

III. TVWS Problems Will Continuously Arise Unless the Commission Fixes the Design Flaws Now and Imposes Some Liability on Database Administrators

The Commission has a golden opportunity in this proceeding to correct the course of spectrum sharing in the TV band before it causes serious, and possibly intractable, interference problems. Given the very limited numbers of TVWS devices operating, the Commission has been able to eliminate manually a number of inaccurate entries in the database. That's easily accomplished with a few hundred devices manually—but it will be impossible with a million devices. Therefore, it is critical that the Commission take action as quickly as possible to prevent bad data from overwhelming the TVWS database.

In addition to requiring simple geolocation capability in every device, the Affiliates Associations agree with NAB that the various database administrators which manage the unlicensed device inputs—and profit from it—should be responsible for helping ensure the accuracy of the information. As NAB's Petition notes, the required contact information of TVWS device owners was also found to be frequently inaccurate—sometimes comically so.¹² Requiring database administrators to incorporate certain accountability measures—such as ensuring that an email address is accurate—is crucial to possible enforcement actions. If a

¹² See NAB Petition at 9-11.

particular device is found to be interfering, it is obviously important for the Commission to be able to quickly contact the device's owner so they can change the location of, or turn off, the offending device. As it stands now, the Commission has almost no control over TVWS operators, and database administrators have no incentive to ensure accurate data that guarantees interference-free operations.

Conclusion

The Affiliates Associations agree with NAB that the current system for ensuring interference-free operation of unlicensed device operation in the TV band is not working and is in need of a few small—but essential—fixes. The Commission should amend its rules to eliminate “professional installation” as an alternative to automatic geolocation capability in every fixed TVWS device and to require database administrators to help ensure the accuracy of unlicensed device information in the TVWS database. The Commission should make these fixes quickly so that, as the TVWS market develops, it will not cause widespread interference to licensed operations.

Respectfully submitted,

**THE ABC TELEVISION AFFILIATES
ASSOCIATION**

**THE CBS TELEVISION NETWORK
AFFILIATES ASSOCIATION**

**THE FBC TELEVISION AFFILIATES
ASSOCIATION**

THE NBC TELEVISION AFFILIATES

/s/

Wade H. Hargrove
Mark J. Prak
David Kushner
BROOKS, PIERCE, MCLENDON,
HUMPHREY & LEONARD, L.L.P.
Wells Fargo Capitol Center, Suite 1600
Raleigh, N.C. 27601
Telephone: (919) 839-0300

*Counsel for the ABC Television
Affiliates Association*

/s/

Jennifer A. Johnson
Gerard J. Waldron
Eve R. Pogoriler
COVINGTON & BURLING LLP
One CityCenter
850 Tenth Street N.W.
Washington, DC 20001
Telephone: (202) 662-6000

*Counsel for the CBS Television Network
Affiliates Association and the NBC Television
Affiliates*

/s/

John R. Feore
COOLEY LLP
1299 Pennsylvania Avenue, NW, Suite 700
Washington, DC 20004-2400
Telephone: (202) 776-2786

*Counsel for FBC Television Affiliates
Association*

May 1, 2015