

**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
)	

**COUNTY OF LOS ANGELES
OPPOSITION TO PETITIONS FOR RECONSIDERATION
OF MOTOROLA, INC. AND OF DELL, INC AND MICROSOFT CORP.**

The County of Los Angeles (the “County”) hereby submits the following Opposition to the Petition for Reconsideration of Motorola, Inc. and the Petition for Reconsideration of Dell, Inc. and Microsoft Corp. (collectively “Petitioners”) to the extent they seek reconsideration of the Commission’s decision in the above-captioned proceeding to prohibit unlicensed portable/personal devices from operating in TV channels 14-20 (470-512 MHz).

Part 90, Subpart L, of the Commission’s rules allocate a total of 18 MHz (TV channels 14, 16, and 20) in the 470-512 MHz band for public safety and other private land mobile radio communications in the Los Angeles metropolitan area. In addition, the FCC recently granted the County a waiver to permit its use of an additional 6 MHz of spectrum (TV channel 15) as part of a new interoperable radio network that will consolidate public safety operations for agencies and jurisdictions across the Los Angeles

area.¹ Public safety and other land mobile operations in various portions of 470-512 MHz are also authorized by both rule² and waiver³ in the New York, San Francisco, Philadelphia, Boston, Washington, Chicago, Miami, Pittsburgh, Dallas, and Houston metropolitan areas.

The 470-512 MHz band has long been the principal public safety mobile frequency band in Los Angeles.⁴ A total of 50 law enforcement agencies and fire departments within the County operate their primary public safety communications in the UHF band, primarily in 470-512 MHz. These include the Los Angeles Police Department (with over 11,500 portable and mobile radios), the Los Angeles County Sheriff's Department (with over 14,600 mobile/portable radios, primarily on channel 16), the Los Angeles County Fire Department (with over 1,500 portable radios), and several dozen smaller agencies that interoperate on a daily basis with County and City of Los Angeles departments. Additional public safety agencies in the area are expected to migrate to the 470-512 MHz band with the expanded capacity provided through the use of channel 15 and the promise of improved interoperability.

This extensive public safety use of the 470-512 MHz band in the Los Angeles area requires a “no tolerance” approach to radio interference that could disrupt emergency communications. Therefore, the County participated in this and related proceedings to oppose the introduction of unlicensed devices in TV channels 14-20. Of

¹ *County of Los Angeles, California*, DA 08-2823, released December 30, 2008.

² 47 C.F.R. §90.311

³ *See, e.g.*, Nassau County Police Department, *Memorandum Opinion and Order*, DA 02-1771, 17 FCC Rcd 14252 (2002).

⁴ *See, e.g.*, South Bay Regional Public Safety Communications Authority, *Memorandum Opinion and Order*, 13 FCC Rcd 23781, 23797 (1998) (“*South Bay*”).

particular concern are devices that could be easily transported to areas in or near Los Angeles.⁵ The Commission's prohibition against such devices must be retained.

Petitioners argue that a combination of spectrum sensing techniques and geolocation capability provides sufficient protection against the use of unlicensed portable/personal devices in any of the metropolitan areas where portions of the 470-512 MHz band are allocated (or authorized) for public safety and other land mobile radio use. The County disagrees. The interference techniques described by Petitioners have never been deployed in large numbers, and remain mostly untested in real world environments. Sensing of mobile radio transmissions (which are itinerant and intermittent, unlike a fixed, constant TV signal) also poses significant technical challenges.

Geolocation methods that rely on databases of excluded geographic areas would also be challenged by the evolving locations of public safety systems granted by waiver (of which there are many, especially in the mid-Atlantic region). For example, a geolocation avoidance system programmed to prevent unlicensed operations in Los Angeles on channels allocated for land mobile use might not recognize the extensive operations that will be deployed on channel 15 pursuant to waiver. Similarly, some waivers have allowed use of 470-512 MHz channels beyond the usual 50-mile radius of major metropolitan areas.⁶ How would a geolocation device recognize those operations?

⁵ Many of the County's transmit and/or receive sites are atop mountains surrounding the Los Angeles Basin (the County's 4,084 square miles include the valleys and deserts on the other side of those mountains). Those mountaintop sites are susceptible to interference from distant locations, often well beyond the range "protected" by FCC rule. Similarly, the County has experienced interference from distant locations due to "over water" paths and as a consequence of "ducting" along the Pacific Coast.

⁶ Mobile use is allowed with 30 miles of an associated base station, creating a potential radius of 80 miles under the rules.

Perhaps such interference-avoidance technology is sufficient to prevent interference to television reception, where the public harm caused by a single technology “failure” is relatively minor. Radio communications used to protect the safety of life and property have no such margin of error. Just one instance of interference could disrupt critical emergency communications and be the difference between life and death. Therefore, Petitioners’ mere “confidence” that interference avoidance technologies will work in every instance is far too little to justify reconsideration of the Commission’s decision to exclude unlicensed portable/mobile devices from channels 14-20.

CONCLUSION

Therefore, for the reasons set forth above and in the record, the Commission should retain existing rules that prohibit portable/mobile unlicensed devices from operating in TV channels 14-20.

Respectfully submitted,

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