

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

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

**REPLY COMMENTS OF THE
UNITED TELECOM COUNCIL**

The United Telecom Council (UTC) hereby submits the following reply comments in response to the Commission's *Notice of Inquiry* in the above-referenced proceeding.¹ The FCC's interest in promoting the growth of unlicensed wireless applications is of deep interest to UTC's hundreds of critical infrastructure entity members, who simultaneously use a wide variety of unlicensed services, often operate their own unlicensed wireless networks, and operate licensed private land mobile radio (PLMR) systems that would be impacted by the Commission's proposals in the NOI. Therefore, UTC's members have a significant interest in this proceeding.

UTC agrees that the strong growth of unlicensed wireless services is a major success story in the telecommunications industry, and that additional spectrum should be made available for unlicensed use. However, for the purposes of this proceeding, which is limited to the question of whether secondary unlicensed use should be expanded to include broadcast spectrum and portions of the 3 GHz band, caution is warranted. UTC agrees with and supports the positions of the many commenters noting the need to protect

existing licensed operations, and the inadvisability in opening all spectrum bands to unlicensed devices simply because of the success to date of these applications. UTC specifically supports those commenters pointing the Commission's attention to the use of the 470-512 MHz band by PLMR systems – many operated by public safety radio services entities, including UTC's electrical, gas and water utility members – which cannot suffer interference that is difficult to pinpoint and even more difficult to resolve.

I. The Commission Should Not Open Broadcast Bands to Unlicensed Use Without Adequate Protection of Licensed Users.

UTC supports specifically the positions in this proceeding of the Land Mobile Communications Council (LMCC) and the American Petroleum Institute (API).² API's discussion of its member companies' use of spectrum closely mirrors that of UTC's members, although UTC member utilities use their PLMR, point-to-point and point-to-multipoint fixed (including supervisory control and data acquisition (SCADA)), unlicensed and other spectrum-based systems to provide electrical, gas and water services to all Americans, also essential to protecting lives, health and property.³ The PLMR systems include licensed operations in the eleven largest U.S. cities on portions of the 470-512 MHz band, television channels 14-20.⁴ As with those of other commenters, these systems may not suffer interference,⁵ as they support the often-emergency communications needs

¹ *Notice of Inquiry*, ET Docket No. 02-380, FCC 02-328 (released December 20, 2002) (“NOI”).

² See *generally*, Comments of the Land Mobile Communications Council, ET Docket No. 02-380, filed April 17, 2003 (LMCC Comments); Comments of the American Petroleum Institute, ET Docket No. 02-380, filed April 17, 2003 (API Comments).

³ See, API Comments at 2-3.

⁴ See, 47 C.F.R. § 90.301 *et seq.* (Part 90, Subpart L).

⁵ See, Comments of APCO, ET Docket No. 02-380, filed April 17, 2003, at 2.

of utility personnel carrying on extremely hazardous activities around power lines, substations, gas pipelines and both conventional and nuclear generating plants.

As several commenters point out, unlicensed use of so-called “white space” in the television broadcast band is undesirable due to the inability to identify the source of interference: many unlicensed applications involve mobile devices, and there are a wide variety of such devices for many uses. Once unleashed, it would be impossible to curb the use of such devices by consumers, regardless of possible geographical or other attempted restrictions in the Commission’s Rules of which nearly all consumers would be completely unaware. Also, unlike the fixed nature of television receivers that are generally “on” for long periods of time, PLMR receivers are both mobile and used for unpredictably timed, short transmissions. An unlicensed device seeking an “unused” frequency may target one that is about to be needed for an emergency PLMR communication nearby, which could lead at any time to dangerous interference.⁶ UTC agrees with Motorola “due to the dynamic nature of mobile operations, there is no readily apparent technological solution that would enable unlicensed secondary use without causing harmful interference to licensed services.”⁷

UTC notes that those participants in this proceeding urging expansion of unlicensed authority appear to be unaware of the heavy use of the 470-512 MHz band by PLMR systems in available markets, and offer no means by which they

⁶ See, e.g., Comments of Motorola, Inc., ET Docket No. 02-380, filed April 17, 2003, at 5 (Motorola Comments).

⁷ *Id.*

could protect these systems, as opposed to television broadcasting.⁸ The New America Foundation and its co-commenters go so far as to urge the Commission to assign *all* of channels 52-69 “purely” to unlicensed use, which would include vital Public Safety spectrum and guard band spectrum already auctioned and likely to be used by critical infrastructure, among other lessees.⁹ Such lack of knowledge about existing allocations does not bode well for the safety of licensed communications should unlicensed use be set loose in the broadcast bands. Therefore, UTC agrees with commenters that urge the Commission not to permit the use of unlicensed devices in broadcast spectrum without assured protection to licensed use, and especially not where licensed mobile operations are authorized, such as in the 470-512 MHz band and in the portions of the 746-806 MHz band allocated to Public Safety and guard band managers.¹⁰

II. Further Licensed Sharing of Broadcast Spectrum Is More Feasible Than Unlicensed Use.

There is no question that broadcast spectrum is underutilized, even after the compacting of the band through digital allocations. However, predictable, identifiable users make better partners for broadcast stations than wildly proliferating unlicensed devices at the present level of technology, and there is a thirty-year record of such successful sharing in the 470-512 MHz band. UTC agrees wholeheartedly with LMCC’s recommendation that licensed PLMR use of

⁸ See, Comments of Intel Corporation; Comments of the New America Foundation *et al.*; Comments of Shared Spectrum Company.

⁹ Comments of the New American Foundation *et al.* at 10-13.

¹⁰ See, *e.g.*, APCO Comments; Motorola Comments; Comments of the Port Authority of New York and New Jersey; Comments of the City and County of San Francisco; LMCC Comments.

unused portions of the 470-512 MHz band should be extended beyond the largest eleven markets.¹¹

As LMCC points out, neither broadcasters nor PLMR licensees in the so-called “T Band” have reported any instances of interference from the other in the long history of this allocation. Frequency coordinators are careful to observe broadcast protection criteria in assigning available frequencies, and 470-512 MHz channels are both highly desirable for PLMR operations, and rarely available. Whatever the FCC’s reason for initially limiting this allocation a few major markets, the pressure on PLMR spectrum across the country warrants revisiting this matter. Moreover, high-power, long-range PLMR systems require spectrum at lower frequencies, such as the broadcast spectrum below 1 GHz, while unlicensed use has proven extremely adaptable to frequencies in the 2.4 GHz and 5 GHz bands where low-power, short-range systems are more appropriate.¹² Since the NOI itself does not purport to advocate the use of unlicensed devices over licensed use,¹³ UTC echoes LMCC’s suggestion that extending PLMR sharing of the 470-512 MHz band is presently a more desirable way to use broadcast spectrum more efficiently.

¹¹ LMCC Comments at 9-10.

¹² UTC also notes that the FCC already proposes to allocate an additional 255 MHz of 5 GHz spectrum to unlicensed use. See, “FCC Proposes Additional Spectrum for Unlicensed Use,” ET Docket No. 03-XX, News Release, released May 15, 2003.

III. Conclusion

Therefore, UTC recommends that the FCC proceed promptly to act in a manner consistent with the recommendations herein.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jill M. Lyon", with a long horizontal flourish extending to the right.

Jill M. Lyon
Vice President and General Counsel

United Telecom Council
1901 Pennsylvania Avenue, N.W.
Fifth Floor
Washington, DC 20006
202.872.0030

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