

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
The 4.9 GHz Band Transferred from)	WT Docket No. 00-32
Federal Government Use)	
)	
)	

**COMMENTS OF THE
UNITED TELECOM COUNCIL**

The United Telecom Council (“UTC”) hereby submits its Comments on the *Further Notice of Proposed Rule Making* in the above-captioned proceeding.¹

I. INTRODUCTION

UTC is the national representative on communications matters for the nation’s electric, gas, and water utilities, natural gas pipelines and other critical infrastructure (“CI”) entities. Approximately 1,000 such entities are members of UTC, ranging in size from large combination electric-gas-water utilities that serve millions of customers, to smaller, rural electric cooperatives and water districts that serve only a few thousand customers each. Together with the Critical Infrastructure Communications Coalition (“CICC”)², UTC represents the

¹ The 4.9 GHz Band Transferred from Federal Government Use, WT Docket No. 00-32, *Second Report and Order and Further Notice of Proposed Rule Making*, 17 FCC Rcd 3995 (2002)(“*Further Notice of Proposed Rule Making*” or “*Further Notice*”).

² The CICC is composed of the following organizations: The American Gas Association, the American Petroleum Institute, the American Public Power Association, the American

telecommunications and information technology interests of virtually every utility, pipeline, railroad and other CI entity in the country.

II. ELIGIBILITY IN THE 4.9 GHZ BAND

A. UTC supports public safety radio services eligibility to hold licenses in the 4.9 GHz public safety band.

The *Further Notice* seeks comment on whether the FCC should use the broader description of “public safety radio services” (“PSRS”) contained in Section 309(j)(2) of the Act to define eligibility to use the band. In that regard, the Commission notes that the 4.9 GHz band is not statutorily earmarked for public safety services as defined in Section 337(f). Moreover, the very nature of PSRS involves potential hazards whereby reliable radio communications is an essential tool in either avoiding the occurrence of such hazards, or responding to emergency circumstances. Likewise, the FCC recognizes that interoperability between public safety and the broader class of PSRS is necessary to coordinate during emergency response.

UTC fully supports making PSRS eligible in the 4.9 GHz band. The CI members of UTC who provide PSRS must maintain reliable, secure communications. As the Commission has noted, owing to the essential services CI provide to the general public, “[a]ny failure in their ability to communicate by radio could have severe consequences on the public welfare.”³ However,

Water Works Association, the Association of American Railroads, the Edison Electric Institute, the Interstate Natural Gas Association of America, the National Association of Water Companies, the National Rural Electric Cooperative Association and UTC.

³ See, In the Matter of Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies; Establishment of Public Service Radio Pool in the Private Mobile

congestion and interference in the Industrial Business (“IB”) and Industrial and Land Transportation (“I/LT”) PLMR pools continue to plague CI communications. Although this frequency band is not appropriate for backbone, longer-distance two-way voice and data communications, eligibility in the 4.9 GHz would represent an important first step towards alleviating the threat to CI communications.

CI eligibility in the 4.9 GHz band would also promote interoperability with public safety in emergency response situations. Utilities and other CI entities are first responders with traditional public safety agencies, and the 4.9 GHz band could be used for such “hot spot” communications. Moreover, making all likely emergency responders eligible for licensing in the 4.9 GHz band would encourage the joint development of these systems, just as CI entities already assist public safety by contributing toward PLMR public safety/public service shared systems in accordance with Section 90.179 of the Commission’s rules.⁴

CI use of the 4.9 GHz band would be compatible with public safety services. Both rely on instantaneous voice and data applications and systems that are designed, built and maintained to the highest-quality standards. Both use networks for critical communications that are essential to protect the safety of life, health and property, and both have experience coordinating their

Frequencies Below 800 MHz; Petition for Rule Making of The American Mobile Telecommunications Association, *Report and Order and Further Notice of Proposed Rulemaking*, 15 FCC Rcd. 22709, 22746 at ¶76 (2001)(“BBA97 Report and Order”).

⁴ 47 C.F.R. §90.179.

operations with one another. Therefore, UTC submits that both should share this spectrum equally without restricting either group to fixed or mobile use.⁵

B. The Commission should not auction the 4.9 GHz public safety band.

Although UTC supports innovative and non-traditional means of employing public safety use of this band, it is concerned by the prospect of spectrum auctions if the Commission permits commercial use in support of public safety. Auctions would delay entry and divert investment from licensees and manufacturers that must purchase and design equipment for this band. Nor is it necessary to conduct auctions if commercial entities support public safety in the 4.9 GHz band. Certainly the Commission has permitted non-governmental organizations (“NGOs”) to support public safety in the 700 MHz band, provided that NGOs obtain a written endorsement from a public safety entity. Therefore, UTC suggests that the Commission adopt a similar arrangement here, if it decides to permit commercial use in support of public safety in the 4.9 GHz band.

III. FIXED AND MOBILE USE OF THE 4.9 GHZ BAND

The *Further Notice* seeks comment on the wisdom of restricting the 4.9 GHz band for mobile-only, short-range communications. The FCC expresses concern that such a restriction would limit licensee flexibility and could prohibit future technologies that could benefit public safety. It also recognizes that inefficient use of the spectrum may result during interim periods between emergency situations, if the band is restricted to mobile-only use.

⁵ See *Further Notice of Proposed Rule Making* at ¶¶35-36.

UTC agrees that the 4.9 GHz band should not be restricted to mobile-only use. In fact, there is a range of potential fixed applications for this spectrum that are being considered by CI entities. The 4.9 GHz band could support fixed wireless backhaul from remote mobile locations on a point-to-point or point-to-multipoint basis. Temporary fixed links could be deployed after incidents such as natural disasters and oil spills. Finally, primary fixed uses in this band should be regulated generally pursuant to Part 101 of the Rules and could be coordinated in accordance with Section 101.103. UTC opposes secondary licensing of fixed use in the band.

IV. THE 4.9 GHz BAND SHOULD BE DIVIDED INTO TWO BLOCKS FOR FIXED AND MOBILE APPLICATIONS.

The *Further Notice* seeks comment on various channel plans proposed for the 4.9 GHz band. The FCC notes that most of these proposals envisioned commercial use of the band, and that the channel plans may need to be modified to accommodate fixed use. Specifically, the FCC invites comment on segmenting a block into 2.5 megahertz paths for fixed services.

Consistent with its support for fixed as well as mobile use of the band, UTC supports a modified version of the channel plan proposed by Motorola, under which the 4.9 GHz band would be divided into one 25 megahertz block for mobile services and one 25 megahertz block that would be segmented into five 2.5 megahertz paths for fixed services. UTC believes that dividing the spectrum between fixed and mobile services would reduce the potential for interference, but that coordination would still be necessary, particularly in adjacent channels in the same geographic area. UTC also believes that segmenting the fixed

channels into 2.5 megahertz paths would make more effective use of the spectrum, approximating the bandwidths prescribed under Part 101 services in the 4-6 GHz frequency range.

V. LICENSING

A. The Commission should license mobile operations through regional planning committees.

The *Further Notice* invites comment on several different licensing methods that have been used in the past for public safety services. Of those options, UTC supports the use of Regional Planning Committees (RPC), because the service areas of CI entities are most closely aligned with the RPC. Further, some CI entities, especially municipal and state-owned utilities and water systems, may have some experience working with them to obtain licenses in the 700 MHz interoperability spectrum. UTC opposes the use of state licensing, because many CI members would need to coordinate with multiple states under such a regime. UTC opposes the use of blanket licensing or unlicensed operation, because such schemes raise the potential for interference and incompatible use of the spectrum. UTC opposes band manager licensing for many of the same reasons that it opposed auctioning the spectrum: market-based schemes are ill-suited for this spectrum. Therefore, UTC suggests that the Commission license the 4.9 GHz spectrum through RPCs.

However, UTC is concerned that many of its members are not familiar with an RPC licensing regime; moreover, existing RPCs may not be familiar with the needs of CI entities. With broader eligibility for this spectrum, UTC suggests that broader representation may be needed on RPCs to educate eligible licensees

and ensure that the needs of all eligibles are met. As an experienced frequency advisory committee, UTC looks forward to working with the traditional public safety community in this area.

B. Primary licensing of fixed operations should be regulated under Part 101 and should offer licensees flexibility without compromising public safety communications.

The *Further Notice* seeks comment on a variety of issues related to licensing fixed services in the 4.9 GHz band. Specifically, it asks whether the Part 27, Part 90 or Part 101 rules should apply; whether site-by-site licensing is the most appropriate scheme for fixed services; and whether construction deadlines are necessary. The Commission should license fixed services pursuant to Part 101 of the Commission's Rules, and should license them on a site-by-site basis. There may be instances in which site-based licensing deprives licensees of the flexibility to relocate transmitter sites within a defined service area without obtaining the Commission's prior approval, and the Commission has the discretion to adopt *de minimis* exceptions that would address this concern. However, the need for flexibility should not outweigh the need to prevent interference. Moreover, if a licensee anticipates that relocation will be necessary, it may seek temporary fixed status.

VI. OTHER MATTERS

The *Further Notice* invites comment on the level of interference protection that should apply to the U.S. Navy below the 4.9 GHz band; the broadband technologies and the power limits that should apply to mobile equipment, and it generally invites comment on technical rules that should apply to fixed

operations, if fixed operations are permitted in the band. UTC takes no position on these technical issues, except that it encourages the Commission to adopt technical rules for fixed services that are consistent with those that apply to other fixed services under Part 101. Therefore, UTC supports the Commission's proposals to adopt an EIRP limit of 55 dBW for the 4.9 GHz band, to apply the minimum path length contained in Section 101.143; to set the same emission mask and frequency tolerance in the 4.9 GHz band as would apply to other fixed microwave services under Part 101. However, UTC does not believe that it is necessary to require fixed licensees to use Automatic Transmitter Power Control (ATPC) at this time.

VII. CONCLUSION

UTC is gratified that the FCC is considering making CI and other public safety radio services entities eligible to be licensed in the 4.9 GHz band. This is an important first step towards addressing the need for an interoperable communications system for all emergency responders, and interference-free spectrum for CI to restore the integrity of their communications systems and the core services they support. The need for reliability is more pressing now than ever, and the 4.9 GHz band could provide CI with short-range, enhanced mobile applications and could satisfy certain specialized fixed operational requirements. UTC looks forward to working with the Commission and the traditional public safety community in the development of this spectrum for the protection of life, health and safety, and encourages private-public cooperation in this important effort.

