

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of:)
)
Options for 470-512 MHz) PS Docket No. 13-42
(T-Band) Spectrum)

**COMMENTS
of the
LAND MOBILE COMMUNICATIONS COUNCIL**

The Land Mobile Communications Council (LMCC) respectfully submits these comments in response to the Commission’s *Public Notice*¹ seeking comment on options to implement Section 6103 of the Spectrum Act of 2012 regarding the 470-512 MHz band, i.e., the T-Band, and on issues surrounding the subsequent Commission T-Band licensing freeze. As addressed in these comments, the T-Band freeze has imposed a significant negative impact on both public safety and industrial/business licensees. Accordingly, LMCC recommends the Commission immediately eliminate the freeze, which is not a requirement of Section 6103 of the Spectrum Act of 2012, and is unprecedented in its implementation so far in advance of any required legislative action of the T-Band spectrum.

¹ See *Public Notice* released February 11, 2013, DA 13-187, in PS Docket No. 13-42: Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Seek Comment on Options for 470-512 MHz (T-Band) Spectrum.

Introduction

LMCC is a non-profit association of organizations representing virtually all users of land mobile radio systems, providers of land mobile services, and manufacturers of land mobile radio equipment. LMCC acts with the consensus, and on behalf of the vast majority of public safety, business, industrial, transportation and private commercial radio users, as well as a diversity of land mobile service providers and equipment manufacturers. Membership includes the following organizations:

- American Association of State Highway and Transportation Officials (AASHTO)
- American Automobile Association (AAA)
- American Petroleum Institute (API)
- Association of American Railroads (AAR)
- Association of Public-Safety Communications Officials-International, Inc. (APCO)
- Aviation Spectrum Resources, Inc. (ASRI)
- Central Station Alarm Association (CSAA)
- Energy Telecommunications and Electrical Association (ENTELEC)
- Enterprise Wireless Alliance (EWA)
- Forest Industries Telecommunications (FIT)
- Forestry-Conservation Communications Association (FCCA)
- Intelligent Transportation Society of America, Inc. (ITSA)
- International Association of Fire Chiefs (IAFC)
- International Municipal Signal Association (IMSA)
- MRFAC, Inc. (MRFAC)
- National Association of State Foresters (NASF)
- PCIA – The Wireless Infrastructure Association (PCIA)
- Telecommunications Industry Association (TIA)
- Utilities Telecom Council (UTC)

I. Background

The T-Band spectrum, 470-512 MHz, is used by public safety and industrial/business licensees in and around eleven top metropolitan areas in the U.S. Public Law 112-96, enacted February 22, 2012, requires the Federal Communications Commission (FCC) to start auctioning the spectrum no later than February 2021 and to relocate public safety from the band within two years after the auction concludes. The proceeds from the auction can be used toward the

cost of relocating public safety systems, but there was no guarantee that sufficient funding would be made available for the relocation. Furthermore, the legislation did not identify the spectrum to which current T-Band licensees would move. The legislation also made no mention of industrial/business licensees in the band that could be impacted by an auction.

The eleven metropolitan areas in which the T-Band spectrum is allocated are Boston, Chicago, Dallas/Ft. Worth, Houston, Los Angeles, Miami, New York City/Northeast NJ, Philadelphia, Pittsburgh, San Francisco/Oakland and Washington DC (including parts of Virginia and Maryland). These are some of the most congested land mobile markets in the country. Not all the spectrum in 470-512 MHz (which also comprises TV channels 14-20) is authorized in each of the 11 markets. Each market has a portion of the T-Band for land mobile operation, and the specific channels and amount of spectrum vary by market.

Also, the breakout of spectrum between public safety and industrial/business licensees varies in each market. With the exception of TV channel 16 in the City of New York metropolitan area and channels 15 and 16 in the Los Angeles metropolitan area, which are designated solely for public safety, there is no contiguous public safety or industrial/business pool. Land mobile T-Band channels are so designated by the types of uses licensed which means public safety and industrial/business land mobile channels are intermixed with one another. The spectrum is used for television in areas outside the eleven designated land mobile sharing markets. Therefore, the use of auctioned T-Band as a source of nationwide broadband spectrum that may have been envisioned in adopting the legislation is very unlikely.

II. The T-Band is a Key Public Safety and Industrial/Business Resource

The T-Band spectrum is a key spectrum resource for both public safety and industrial/business communications. This spectrum, which was allocated in 1971, was expressly provided in the top urban areas to supplement other land mobile allocations because the demand in those top urban areas was 40 years ago, and remains today, greater than the spectrum supply. Today this spectrum supports mission critical communications and regional

interoperability for public safety, as well as business-critical communications for America's businesses and critical infrastructure entities. Removing this spectrum from public safety and industrial/business licensees in these urban areas is unconscionable.

The National Public Safety Communications Council (NPSTC) recently released a comprehensive report that documents public safety use of the T-Band. The LMCC endorses the NPSTC Report and encourages the Commission to fully consider its analysis and conclusions. Accordingly, in these comments, LMCC will not endeavor to document public safety use of the T-Band, as NPSTC has already done so.

While industrial/business licensees and public safety licensees are categorized separately from a Commission perspective, supporting safety and security is also a significant role for industrial/business communications systems, in addition to helping businesses operate effectively, efficiently and competitively. All the rhetoric about creating U.S. jobs means little if businesses are denied the tools needed, including spectrum, to support their operations in the real world. There have been no significant additional spectrum allocations for industrial/business users since the 900 MHz band spectrum was allocated in 1986, over 25 years ago. Accordingly, maintaining existing spectrum allocations like the T-Band is absolutely essential.

For instance, T-Band systems in the Houston, Texas area are used to meet the communications needs of refineries, chemical plants, pipelines, and other critical infrastructure industry facilities. These radio systems are vital to both individual worker safety and the safety of the surrounding communities, as well as environmental protection. More than 80 industrial/business T-Band licenses are held by Channel Industries Mutual Aid ("CIMA") to operate a centralized trunked voice radio system. CIMA is a non-profit organization combining the fire-fighting, rescue, hazardous material handling, and emergency medical capabilities of the Houston ship channel refining and petrochemical industry. Loss of these licenses without

suitable replacement channels and relocation funding would create an unacceptable safety risk for the people and environment of the surrounding area.

In the Boston metropolitan area, NSTAR Electric Company (“NSTAR”) relies on T-Band spectrum to provide communications in support of the generation and distribution of electricity and natural gas to its customers. NSTAR transmits and delivers electricity to more than 1 million electric customers and nearly 300,000 gas customers. According to recent filings made by NSTAR,² the company recently invested \$7 million to upgrade its existing hybrid UHF/T-Band system to comply with the Commission’s narrowband rules. NSTAR’s upgraded next generation system provides the company with a common radio platform, eliminates the need to change radios when moving between service territories, and promotes the safety of NSTAR’s personnel with enhanced “emergency alert” and “GPS tracking” features. Because there is no comparable replacement spectrum in the Boston market available to industrial/business licensees, loss of its T-Band licenses would have a severe negative impact on the communities served by NSTAR.

III. The Commission Should Immediately Eliminate the Freeze

In April 2012, the Wireless Telecommunications/Public Safety and Homeland Security Bureaus imposed a freeze on new T-Band licenses or modifications to existing licenses that would expand the spectrum or geographic footprint.³ This freeze is not a requirement in the legislation. Further, even though the legislation addressed only the public safety T-Band spectrum, the Bureau’s freeze impacts both public safety and industrial/business users. In their February 2013 Public Notice, the Bureaus seek comment on the freeze, including posing the following question: “Should the Commission continue this suspension until reallocation and

² See, FCC File No. 0005174965.

³ See *Public Notice*, Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Suspend the Acceptance and Processing of Certain Part 22 and 90 Applications for the 470-512 MHz (T-Band) Spectrum, DA 12-643, released April 26, 2012.

relocation are implemented, even if this does not occur until the maximum period of years allowed by Section 6103?"⁴

The LMCC response is a resounding NO. The T-Band freeze is detrimental to public safety and industrial/business users who rely on this spectrum for communications and most certainly will need to implement some type of upgrades or expansion to their systems before 2021. LMCC therefore recommends the T-Band freeze be eliminated immediately. Following are just a few examples of how the freeze is hurting business and is contrary to the public interest.

T-Band Freeze Impact on Highland Wireless Services, LLC

Highland Wireless Services, LLC ("Highland"), headquartered in Fort Lauderdale, Florida, serves thousands of small business users that employ the T-Band to communicate. These operations rely on more than 100 industrial/business T-Band frequencies across ten sites in southeast Florida to provide specialized voice and data services to these small businesses.

Approximately 50% of Highland's business is in the health care field. The T-Band is used by hospitals for security, engineering, and safety. It is also used by medical transportation companies and other medical groups for safety, emergency preparedness, and disaster recovery. Given the government's focus on health care in this country, it would be ironic indeed if the same government removed spectrum resources necessary to support health care operations.

The remaining 50% of Highland's business provides communications resources for a broad range of operations that all have one key attribute in common: they are operations and services upon which businesses and the public rely. These include roadside assistance for stranded motorists on interstate highways, parks and recreation, a variety of public works, airport security, residential development and commercial property security, executive protection, construction, towing and taxi services. Removal of the T-Band spectrum altogether,

⁴ Public Notice DA 13-187, at page 4.

as well as the current licensing freeze restrictions, negatively impacts these numerous small businesses and members of the public.

Highland and its customers have continually updated operations with new technologies to provide greater spectrum efficiency and operational capabilities that match the users' needs. These include state-of-the-art digital trunking networks that require non-shared T-Band frequencies for control channels. Highland has invested hundreds of thousands of dollars to grow this business and serve its end users with reliable and cost-effective communications. The T-Band freeze has seriously damaged Highland's ability to respond to the needs of its customers, certainly an uncalled for situation for a licensee who based its business on valid FCC spectrum allocations and regulations. Due to the freeze, Highland is specifically disadvantaged as follows:

- It cannot relocate to more desirable sites to provide the coverage its customers need even though it is the only licensee on its channels within the 50 mile radius of the center coordinates for Miami, Florida. This prevents implementing additional coverage required as users' territories expand.
- It cannot increase capacity on overloaded systems by adding frequencies from expired licenses, moving spectrum from underutilized sites to overloaded sites, or acquiring new licenses to address the capacity issue. End users on the system now must deal with an increase in system busies. This wastes valuable time.
- It is artificially hampered in achieving the return on its investment needed to grow its business and provide turnkey solutions for its customers. The uncertainty about investment in spectrum slated for auction also causes hesitancy by prospective customers who are concerned they will see the high level grade of service Highland historically has provided deteriorate.

T-Band Freeze Impact on Atlantic Telecommunications

Atlantic Telecommunications (“Atlantic”), together with three other independent regional operators, Integrated Wireless Technologies of Long Island, Repeater Network of Congers, New York and Mic-Talk of Holmdel, New Jersey, operate a thirty-four (34)-site T-Band network. This system serves a diversified business community as well as local governments, ambulance services, and similar customers. The system was one of the very few that were fully operational after Super Storm Sandy and provided much needed emergency communications to various volunteer groups that set up operations to help communities in the storm’s aftermath.

After the Commission imposed the T-Band freeze, Atlantic’s business model changed dramatically in a very negative way. Atlantic estimates that it has lost nearly a thousand potential subscribers and the count continues to grow. It is difficult to refute competitors’ claims that Atlantic’s systems are scheduled for obsolescence by the Federal government and will be taken down. Just recently, a major prospective customer for Atlantic in New Jersey needed to expand its radio operations and Atlantic and its partners were poised to accommodate those communications needs. However, the prospective customer’s consultants advised against investing equipment dollars in the T-Band due to the uncertainties surrounding the freeze and potential relocation. As a result, the prospective customer did not choose Atlantic.

Additionally, Atlantic advises that its system design dictates maximum flexibility in implementing new sites or relocating existing ones to accommodate changing needs. The freeze has virtually stopped system expansion, which translates to almost non-existent site equipment purchases as well as a major impact to subscriber equipment. The Commission’s T-Band freeze is clearly detrimental to Atlantic’s business and the employment its business supports.

T-Band Freeze Impact on RF Design Consultants, Inc.

There are a very significant number of public safety systems operated by the Counties, Townships, Villages, and hundreds of Fire Districts and Fire Departments in the Long Island, New York area. Recently, the high cost of system and component replacement needed to meet the FCC's narrowbanding requirements prompted many public safety users to plan or actually begin the implementation of new communications systems. In addition, many municipalities wish to take advantage of the exciting new digital technologies, including GPS for tracking their fleet activities and extending coverage within their districts by way of IP-based voting and simulcast systems. The problem is this is all occurring or was planned to take place in the T-Band as it is the only available and suitable Part 90 spectrum on Long Island.

From RF Design Consultants, Inc.'s ("RF Design") business standpoint, and for the public safety and industrial/business entities planning to use these systems, the FCC decision to freeze T-Band is beyond devastating. Since the advent of the T-Band freeze, RF Design alone has sustained losses totaling over \$750,000.00 in scheduled business for the fiscal year. These were "shovel ready" projects that were awaiting spectrum licensing. In fact, RF Design has T-Band license applications pending for a new site and for additional frequencies at existing sites, all with customers waiting, but these applications are now frozen in their pending status. With no alternative spectrum suitable for these communications requirements, these projects now are dead in their tracks.

RF Design notes that there has been a rebirth of land mobile radio (LMR) with the advent of digital technologies and the migration to IP-based equipment. This has been extremely exciting for the industry as it offers features and services that were not previously available. What is quite possibly the most promising technology advancement in the industry within the past twenty years will now be seriously hampered within our market because of the T-Band freeze as there is no alternative spectrum that can support these technology improvements.

Summary of the T-Band Freeze Impact

The bottom line of the above situation is that the T-Band freeze imposed by the Commission's Wireless Telecommunications Bureau and the Public Safety and Homeland Security Bureau has a devastatingly negative impact on users' ability to meet their communications needs, a negative impact on businesses providing services, and a negative impact on jobs that all these businesses support. This freeze artificially leads to dissatisfied customers through no fault of the industry or T-Band licensees. Instead of supporting small businesses and helping them grow the economy and, in turn, create additional jobs, the T-Band freeze does exactly the opposite. The T-Band freeze should be lifted immediately.

The T-Band Freeze is Also Unprecedented

In addition to its detrimental effect on the LMR market, imposing a freeze this far in advance of the actions required under the legislation is unprecedented. In 800 MHz rebanding, a freeze was not implemented until after the actual relocation process began. This was well after final rules were adopted and years after the FCC first considered that it might need to implement such a band relocation process. The processing freeze in the 39 GHz band cited by the FCC in adopting the T-Band freeze also had very limited retroactive impact. It covered only applications filed on or after a date one month before the FCC adopted a Notice of Proposed Rulemaking in which it proposed specific amendments to the technical and licensing rules governing that band.⁵

The FCC has been auctioning vacant non-reserved band FM allotments on a rolling basis since 2004.⁶ Like T-Band, which is available for PLMR use in 11 discrete metro markets across the country, these allotments are geographically distinct. The FCC did not freeze all such allotments in 2004 in anticipation of auctioning them. Rather, it imposed a freeze on "petitions and counterproposals that propose a change in channel, class, community, or reference

⁵ Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, *Notice of Proposed Rulemaking and Order*, ET Docket No. 95-183, 11 FCC Rcd 4930 at ¶ 124 (1996).

⁶ See FCC Auctions 37, 62, 68, 70, 79, 91, 93, and 94.

coordinates for any of the vacant non-reserved band FM allotments” that are included in a particular auction approximately six months prior to conducting the auction.⁷

In contrast, the FCC has imposed a freeze on all pending T-Band applications, whenever and wherever filed, on all applications for new licenses, and on all applications for license modifications that would expand a licensee’s spectrum or geographic footprint. In other words, in taking that action, the Bureaus have introduced uncertainty in yet another band needed by land mobile users and shut down the routine option to deploy the T-Band spectrum nine years before any required legislative action to auction the band. Further, this action affects industrial/business users whose frequencies are not even mentioned in the legislation. There is no need to “stabilize the existing spectrum landscape” years before any FCC action to reallocate the band is required.

IV. Replacement Spectrum

The allocated T-Band spectrum totals between 6 MHz and 24 MHz depending on the specific market. These allocations are as follows: Los Angeles - 24 MHz; New York - 18 MHz; Boston, Chicago, Philadelphia, Pittsburg, San Francisco and Washington DC – 12 MHz each; and Dallas, Houston, and Miami – 6 MHz each. Section 6103 of the Spectrum Act, which addresses the public safety portion of that spectrum, would place a huge crater in the spectrum in these eleven markets. The NPSTC T-Band Report amply documented the portion of the T-Band spectrum licensed for public safety use in each market that would be subject to the provisions of the Spectrum Act.⁸ Using that information, LMCC determined the spectrum that is used by industrial/business licensees and summarizes that information in the following chart.

⁷ See, e.g., Auction 94 Freeze Announced for Certain FM Applications and Rulemaking Filings, *Public Notice*, DA 12-1451 (rel. Sept. 11, 2012).

⁸ See NPSTC T-Band Report, Table 1.1 at page 6.

Industrial/Business Spectrum

Metro Market	TV Channels Designated for Land Mobile Use*	% of Active Land Mobile Channels Licensed to Industrial/Business. [% Varies Across TV Channels]	Aggregated Amount of I/B Spectrum (MHz)
Boston	14, 16	36%, 13%	2.94
Chicago	14, 15	60%, 44%	6.24
Dallas	16	80%	4.80
Houston	17	97%	5.82
Los Angeles	14,15,16,20	7%, 0%, 0%, 17%	1.44
Miami	14	83%	4.98
New York	14,15,16	31%, 30%, 0%	3.66
Philadelphia	19,20	18%, 22%	2.4
Pittsburgh	14,18	59%, 0%	3.54
San Francisco	16,17	63%, 65%	7.68
Washington, DC	17,18	72%, 79%	9.06

*Each TV Channel = 6 MHz

This table shows that industrial/business licensees face significant “collateral damage” from the Spectrum Act even though the Act only addresses public safety. Frequency advisory committee members of the LMCC have confirmed that there is no alternative unused spectrum in the bands currently accessible to industrial/business users sufficient to make up the potential loss of this T-Band spectrum.

Accordingly, if Section 6103 of the Spectrum Act is not rescinded and industrial/business users are not provided any new spectrum, the only foreseeable option is to repack these users into a portion of the T-Band spectrum and forgo auction of that spectrum segment. Funding would be needed to implement such a plan. In addition, a guard band would be needed between the repacked narrowband spectrum and any broadband spectrum resulting from the auction. The Commission, the industry and engineering practice have well-documented that

broadband operations cannot be placed immediately adjacent to narrowband operations without causing interference.⁹

V. Conclusion

The NPSTC Report already documented the significant impact for public safety T-Band users, the shortage of replacement spectrum, the cost of relocation, and the conclusion there is no public interest benefit in forcing those users out of the band. LMCC concurs with the findings of the NPSTC T-Band report. While not required by the legislation, should industrial/business licensees be subjected to similar action as a result of “collateral damage” there simply is NO comparable replacement spectrum for these operations. Given the above, Section 6103 of the Spectrum Act of 2012 should be rescinded so the T-Band can remain a land mobile resource to support the thousands of industrial/business and public safety users who rely on that spectrum.

While rescinding Section 6103 of the Spectrum Act of 2012 requires Congressional action, the current freeze on T-Band licensing is entirely within the Commission’s control and should be lifted immediately. As addressed in these comments, the T-Band license freeze already has had a highly negative effect on communications, operations, the viability of small businesses, employment those businesses support, and the public interest overall.

Respectfully submitted,

/s/ Donald Vasek

President

Land Mobile Communications Council

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⁹ See *Second Report and Order* in PS Docket 06-229 and WT Docket No. 06-150 that defined the 700 MHz public safety band plan, including the need for a guardband between the narrowband and broadband spectrum. (2007)