

The NPSTC Report (National Public Safety Telecommunications Council) has been prior submitted into the record of this proceeding and includes extensive data and analysis responding to many of the questions posed in the *Public Notice*. Marin County fully supports the findings and recommendations in the NPSTC Report and provides the following additional comments.

Portions of the T-Band were made available for public safety and other land mobile users over 40 years ago to alleviate severe spectrum shortages in 11 major metropolitan areas (New York, Los Angeles, Chicago, Boston, Philadelphia, Washington, Miami, Houston, Dallas, Pittsburgh, and San Francisco).² Today, the T-Band provides radio communications for some of the nation's largest police and fire departments and is critical to the protection of tens of millions of people. There are nearly 300,000 public safety mobile and portable radios and over 3,000 transmitter sites using T-Band frequencies.³ In the San Francisco-Oakland Bay Area the Counties of Marin and San Mateo have established communications systems providing life and property protection for all of its governmental functions. In Marin County the UHF-T band system uses 30 trunked channel pairs and 17 additional simplex conventional channels for tactical operations. The radio system is used by member agencies in the law enforcement, fire management, emergency medical, road maintenance, transit, public works, local government, and other county-based entities. The use of common UHF-T Band channels unifies public safety response, making it possible for members to more effectively and efficiently communicate with each other and within individual

² *Second Report & Order*, Docket No. 18261, 30 FCC 2d 221 (1971). T-Band frequencies are also allocated for land mobile use in Detroit and Cleveland, but cannot be utilized in those areas due to Canadian border restrictions.

³ NPSTC Report at 11.

departments. The MERA network is designed to allow regional or wide area conversations between dispatch centers and mobile units operating throughout the county. MERA is composed of twenty-five agencies with the common goal of providing uncompromised public safety communications. The MERA member agencies are:

1. Southern Marin Fire District
2. City of Belvedere
3. Bolinas Fire Protection District
4. Town of Corte Madera
5. Town of Fairfax
6. Inverness Public Utility District
7. Kentfield Fire Protection District
8. City of Larkspur
9. County of Marin
10. Marin County Transit District
11. Marin Community College District
12. Marin Municipal Water District
13. Marin Community Services District
14. City of Mill Valley
15. City of Novato
16. Novato Fire Protection District
17. Town of Ross
18. Ross Valley Fire Service
19. Town of Tiburon

20. Town of San Anselmo
21. City of San Rafael
22. City of Sausalito
23. Stinson Beach Fire Protection District
24. Tiburon Fire Protection District
25. Twin Cities Police Department

Presently the UHF T Band radio system operates above capacity and needs to be expanded to meet current and projected future needs. The radio system was designed to support 1,580 users with modest growth over a 20-year period. As of December 2009 there are an estimated 2,875 users on the MERA system and accordingly is currently overloaded with traffic by a factor of approximately 20%.

Presently there are 90 Control Stations, 115 Base Stations/Repeaters, 1,800 portables, 1200 mobiles in the system. The MERA system has 8 independent dispatch locations.

Forcing these public safety users to vacate the T-Band will be extraordinarily disruptive and expensive, and could endanger the safety of life and property. As discussed in the NPSTC Report, there is not adequate replacement spectrum available in at least five of the eleven relevant metropolitan areas,⁴ with only marginal amounts available three additional areas.⁵ The NPSTC Report also explains that it will be many years before the future 700 MHz national public safety broadband network will be able to accommodate current mission-critical voice communications.⁶ Therefore, assuming

⁴ New York, Los Angeles, Chicago, Boston and Philadelphia.

⁵ Washington, San Francisco and Pittsburgh.

⁶ NPSTC Report at 31.

that there are no changes to Section 6103, the Commission needs to implement the statute in a manner that minimizes disruption to essential public safety communications services.

Section 6103 provides that revenue from the eventual auction of the T-Band will be made available through grants to offset the costs incurred by public safety agencies in relocating to other frequency bands. Several questions in the *Public Notice* relate to the cost recovery issue, including whether the Commission “should assume that the compensation regime would provide for recovery of the cost of retuning or replacing equipment acquired since the enactment of Section 6103.” Marin County urges that the Commission allow cost recovery for those expenses. A public safety licensee faced with the need to deploy new equipment or systems in the T-Band, notwithstanding the passage of Section 6103, is doing so because of a critical public safety requirement. Such licensees are likely to have no reasonable alternative to the T-Band because of the need to maintain interoperability with existing operations (either in the T-Band itself or the adjacent 450 and 460 MHz bands) and/or of the lack of available spectrum capacity in other public safety frequency bands. Therefore, preventing reimbursement for post-Section 6103 deployments will do little more than penalize public safety agencies for attempting to maintain the effectiveness and interoperability of critical communications systems used by first responders. For similar reasons, licensees should not be required to demonstrate that post-enactment deployments have not increased their potential relocation costs. Calculating such a variable would, in any event, be exceedingly difficult and arbitrary. In the question of reimbursement, we would also point out that due to the current unavailability of public-safety allocations to

satisfy Marin County; they had to “purchase” frequencies from commercial licensees to expand their safety systems. Those costs should also be considered for reimbursement should Marin be required to abandon their T-Band systems and relocate to other spectrum when such can be identified.

The *Public Notice* includes several questions related to voluntary migration by T-Band licensees prior to the relocation mandated by Section 6103. The primary difficulty with this issue, as discussed in the NPSTC Report, is that there is no place for most current T-Band licensees to migrate. Even where alternative spectrum does exist, there is no obvious incentive that could be implemented to encourage voluntary relocation. However, any incentives that might be devised should be positive incentives, as opposed to additional disincentives to remain in the T-Band. An example of a possible incentive would be an approach similar to what occurred with the relocation of 2 GHz microwave licensees. In that situation, auction winners entered into direct negotiations with incumbents to facilitate earlier relocation.⁷ However, it is unclear whether such an approach is feasible, desirable, or within the Commission’s discretion under Section 6103.

Regardless of any incentives that might be adopted, there are some licensees who might be able to migrate earlier than the auction. For example, a licensee with an aging T-Band system in one of the smaller metropolitan areas in which some replacement spectrum is available (or a small licensee in a large market in which there are limited frequencies available in other bands) may be willing to migrate to an alternative band rather than deploying a new system in the T-Band. However, in such

⁷ There were no limits on those payments (unlike the 800 MHz rebanding process), so auction winners could pay more than actual relocation costs to encourage licensees to vacate the 2 GHz band earlier.

cases, the migration out of T-Band likely would not have occurred but for the enactment of Section 6103 and, therefore, the licensees should be entitled to cost recovery. In that situation, the issue becomes one of cash flow and certainty of reimbursement. This is a near term issue which ideally is resolved within the next 6 months to facilitate planning by those licensees.

The Commission also seeks comment as to whether “consolidating adjacent T-Band public safety systems into larger regional systems” would “enable them to use replacement spectrum more efficiently or reduce relocation costs.” Presumably the *Public Notice* is referring to potential consolidation into alternative frequency bands, such as 700 MHz or 800 MHz trunked systems. Again, this assumes that frequencies are available in those bands to accommodate T-Band licensees. Even with the efficiency gains of such a migration, there would still need to be more spectrum than is currently available in the largest T-Band markets. Nevertheless, it is not clear what incentives could be adopted to encourage consolidation, which is already a desirable approach for new systems due to reduced cost, more efficient operations, and enhanced interoperability. However, consolidated systems are difficult to plan and require significant cooperation among participating agencies. The one incentive that might be effective, therefore, would be funding to facilitate the necessary planning and coordination.

As the Commission notes, there are state and local government licensees operating on non-public safety frequencies in the T-Band. This would probably include operations on Part 90 channels licensed for business use as well as licenses on former Part 22 paging channels or television channels granted by waiver. If such T-Band use

is subject to mandatory relocation, then the licensees should clearly be entitled to cost reimbursement under the statute.

Finally, we urge the Commission to lift the current freeze on T-Band applications as it is creating major disruption to public safety systems. Licensees are unable to plan or deploy even minor system enhancements to improve coverage that may be critical to public safety operations. Section 6103 does not require that public safety licensees vacate the band until 2023 and, as discussed above, most will have no place to move even then. Licensees should not be forced to “get by” with existing operations for another ten years despite public safety operational needs that require radio system additions or modifications. Those concerns, not the theoretical increase in potential relocation costs, should be the Commission’s primary concern. While the Commission has indicated that it would consider waivers of the freeze, that option provides little or no meaningful relief due to the typically long wait for action even on relatively simple, unopposed waiver requests.⁸

Lifting the freeze is also unlikely to have any meaningful impact on relocation funding. As addressed in the NPSTC Report, there will not be anywhere close to sufficient auction revenue⁹ to pay the total cost of relocating existing T-Band operations.¹⁰ Therefore, allowing additional use of the T-Band will be inconsequential as there will not, in any event, be sufficient auction revenue available.

⁸ See Somerset County, NJ, *Order*, DA 13-613 (Apr. 4, 2013), addressing a T-Band freeze waiver request submitted eleven (11) months earlier, on May 2, 2012.

⁹ NPSTC Report at 59-62.

¹⁰ NPSTC Report at 34-58.

The County of Marin has made substantial investments (over \$25,000,000) in the initial purchase, expanding capacity and improving coverage and interoperability to our existing 30 channel UHF T-Band trunked system which was initially purchased in 1998 and has been continually maintained and upgraded. In addition to the existing trunked system, Marin County also utilizes 17 additional UHF-T Band channels for tactical operations. Being forward thinking, the county mandated that the system would meet the forecasted narrowband mandate of 2013 and be able to slowly migrate into newer technologies without a complete system replacement.

The County of Marin has been diligently planning and reviewing options for our next generation system. One of our options is to improve on our present UHF-T Band system and include the graceful migration to a newer technology UHF-T Band system. This option makes the best use of our existing sites, antenna systems and mobile and portable radios. The other option would be a complete system change out to a 700 MHz narrowband system. Neither solution is expected to be funded and completed before completion of the UHF-T Band transition.

The Bureaus seek information about the amount of time required to reallocate T-Band spectrum and relocate public safety licensees and asks what factors should be relevant in making this assessment.

Time is entirely dependent on the allocation of funding and the time to deploy alternative networks. If funding could be provided quickly, the relocation in the Bay Area could be accomplished in less than the maximum number of years specified in the Act. However, it is unrealistic to assume that any relocation can be completed prior to

funding availability because there is simply no alternative system in place to support those users (and no funds available to pay to construct those systems).

Relocation simply cannot occur until the alternative systems are built. The systems cannot be built until funding is obtained. Financial challenges of local governments have hampered this process, leaving many jurisdictions to rely on inadequate grant funding, politically unpopular bond measures or other uncertain funding plans. A simple solution does not exist.

At the present state of technology there is no broadband replacement for push-to-talk voice communications. Perhaps the FirstNet public safety broadband network may be used for data communications in the County of Marin but at this time there is no off-the-shelf voice systems available. Perhaps something might be developed in the future that fully meets the needs for mission critical push-to-talk voice communications. Furthermore there is no published FirstNet schedule of deployment and it is an open question whether FirstNet will have any broadband system operating within the time frame proposed for T-Band migration.

The practical schedule issues with migration to a higher frequency band is that equivalent coverage in the County of Marin's terrain will necessitate additional radio sites to be developed. Because detailed planning has not started for the future County of Marin 700 MHz system, specifics are not known at this time but it appears from preliminary design that new sites will be need to be developed to successfully migrate to the higher frequency band.

New greenfield sites are time consuming to select, purchase or lease, and get permits to build. Experience in this area leads to a conclusion that five years is a

reasonable estimate for this process. A new radio system must wait for those sites to be developed before the new system can be put into service. The actual radio system design can be done in a few years.

The County of Marin requests that;

- A. The FCC abandon the transition from UHF-T Band to other spectrum or,
- B. Some proceeds from the T-Band auction be made available immediately to the Assistant Secretary of Commerce for Communications and Information to make grants for the planning, engineering and installation of the required spectrum transition of public safety T-band users. It is our suggestion that these funds be made available on a rolling allocation for those agencies that are ready to move ahead with their plans to move to new spectrum.
- C. In conclusion we respectfully request that the Federal Communications Commission rescind its application freeze in the T-Band and to petition Congress to more thoroughly revisit this matter.