

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of:)
)
Implementation of Sections 309(j) and 337 of) WT Docket No. 99-87
the Communications Act of 1934 as Amended)
)

REQUEST FOR WAIVER

Pursuant to the guidelines issued in the Public Notice, DA-11-1189, the Tennessee Highway Patrol (THP) hereby submits this Request for Waiver of the January 1, 2013 deadline for transitioning to narrowband operations in the 150-174 MHz VHF Band.¹ As required by the waiver standard set forth in Section 1.925 of the Commission's rules, the THP believes and will demonstrate in this petition that "(i) [t]he underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the waiver would be in the public interest; or (ii) [i]n view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative." This petition follows the Public Notice recommended content guidelines and addresses those facts applicable to the specific narrowbanding migration path defined by total the THP for our statewide communications network.

The Tennessee Highway Patrol is headquartered in Nashville and the State is divided into eight geographic THP Districts, currently employing a statewide of 902 commissioned law officers. These troopers are charged with protecting the lives and property of our 6 ½ million citizens and over 10 million annual visitors traveling throughout the 42,000 square miles of our great State. The THP operates a statewide communications network that provides mission critical voice communications in the VHF band and consists of 70 transmitter sites that support approximately

¹ Wireless Telecommunications Bureau, Public Safety and Homeland Security Bureau, and Office of Engineering and Technology Provide Reminder of January 1, 2013 Deadline for Transition to Narrowbanding Operations in the 150-174 MHz and 421-512 MHz Bands and Guidance for Submission of Requests for Waiver and Other Matters, DA 11-189, released July 13, 2011.

1,000 mobile radios and 1,000 vehicular repeaters installed in each THP trooper cruiser, plus 1,000 portable radios assigned to the troopers. The radio network is critical to the safety of our troopers, as well as the citizens and visitors of Tennessee, and is heavily used and relied upon on a continual basis.

The THP has long been aware of the Commission's narrowbanding requirement for our VHF communications network and as detailed below is well into the planning and implementation process to not only ensure compliance with this mandate but also to upgrade this system to improve interoperability, coverage and communications capability with new digital state of the art narrowband technology. This requirement was highlighted in last November's Tennessee Department of Public Safety Strategic Plan, "As first responders, the Highway Patrol needs additional training and equipment to address the new threats they encounter on the highways. The need for such improvements as interoperable communication systems and improvements in communications coverage is widely recognized to be a critical issue and is listed as a top priority. Hopefully, the attention from this issue will provide an opportunity to upgrade the existing technology within the department."²

To date, the THP has implemented a number of specific steps, highlighted by the following, to migrate to a new narrowband mission critical communications network:

1. Developed a detailed plan and project completion schedule to migrate to a statewide interoperable Project 25 trunked platform. Our current communications network operates on 25 kHz VHF transmitters, except for a limited number of interoperability transmitters which are already been upgraded to narrowband capable transmitters. All existing radios and vehicular repeaters will be replaced by new digital multi-band mobile and portable radios and digital vehicular repeaters capable of 12.5 kHz narrowband operation in the VHF, 700 MHz and 800 MHz bands. Our current plans are to construct an entirely new narrowbanded infrastructure that will require the replacement of many of our aged towers and equipment buildings. All existing infrastructure, repeaters and software is being replaced to operate in at least 12.5 kHz narrowband efficiency. When fully installed, this

² Tennessee Department of Public Safety Strategic Plan, November 2010, (Page 195). Issued by the Tennessee Department of Safety Office of Strategic Planning. Authors include Colonel Tracy Trott of the Tennessee Highway Patrol. See www.tennessee.gov/safety.

will be an extremely advanced digital system utilizing a combination of VHF trunked repeaters operating on 12.5 kHz channels in rural areas and 700/800 MHz repeaters in the major metropolitan areas. In consideration of additional future regulatory and operational requirements, the system will also be equipped to support Project 25 Phase 2, two voice paths in 12.5 kHz channel TDMA operation in the 700/800 MHz bands, mainly in the major metro areas.

2. Filed all required license modifications with the Commission for 12.5 kHz narrowband operation on all of our existing stations and channels.
3. Hired Buford Goff and Associates as a consultant to review our plan and to act as the State's Program Manager for the statewide network implementation.
4. Secured Funding for the Project. The project was initially budgeted at a total of \$90 Million by our legislature in the 2010-2011 Capital Budget, contingent on the State receiving a consistent level of Federal Medical Assistance Percentage (FMAP) funding from the Federal Government. Unfortunately, the level of FMAP was ultimately decreased at the Federal level which led to a partial funding of this project. The \$40 Million funding we have received so far will allow us to totally complete our narrowband system implementation in three of our eight THP districts (Districts 1, 2, and 5) and partially complete the implementation in District 3. We have requested the \$77 Million required balance of our funding in the upcoming fiscal year 2012-2013 State Budget and received favorable support from the State Administration for the completion of our plan.
5. Contracted for the implementation of the new Project 25 statewide mission critical system with Motorola Solutions Inc. on 12/09/2011.
6. Started system implementation on 12/09/11.

The Tennessee Highway Patrol fully expects to meet this mandatory narrowbanding requirement as quickly as possible, according to the attached project completion schedule. However, there are numerous challenges involved in implementing a complex multi-band, multi-mode statewide mission critical communications system that make it impossible for the Tennessee Highway Patrol to complete the construction and implementation of this network by the Commission's

January 1, 2013 deadline. Among the major challenges are the following:

- Designing, engineering, constructing and implementing a new digital network for statewide coverage of 42,000 square miles. In addition to geographic size, Tennessee has great geographic diversity, from rivers and lakes in the west, to rolling hills in the middle, to the Smokey Mountains in the east. As noted above, many of our aged towers and infrastructure need to be replaced, including many of the mountain top sites.
- Replacement of over 3,000 radios and vehicular repeaters dispersed throughout our eight THP Districts, while maintaining 24/7 mission critical operation and interoperability within and across these Districts.
- Beyond construction and implementation, the complexity of these state of the art communications networks and radios requires network testing, as well as officer and dispatch personnel training to ensure that everyone using this network has a comprehensive understanding of the capability and operation of the radios. Because lives depend on proper use, security and reliability of this network, there are no short cuts to accelerate these programs.
- Availability of additional \$77 Million funding in the fiscal year 2012-13 State Budget.

The Tennessee Highway Patrol plans to complete the build out, conversion and implementation of District 1 and District 2 to be in narrowband compliance within these Districts by the Commission's January 1, 2013 deadline. As shown in the attached project completion schedule by District, the THP is requesting an additional 36 months to complete the narrowband implementation on a statewide basis.

According to the Commission's guidelines issued in the July 2010 Public Notice, the THP believes that we have recognized the need to narrowband our VHF communications network, have worked diligently and in good faith to meet this requirement. In a comprehensive review of our existing communications network, the THP has concluded that it is in the public interest and the best interest and safety of our troopers to replace this aging 25 kHz VHF network with a multi-band, multi-mode Project 25 digital network capable of 12.5 kHz operation in VHF in the rural areas and 12.5 kHz TDMA operation in 700/800 MHz in the major metro areas. The Tennessee Highway Patrol is convinced that this is the correct long term decision for our first

responders and citizens.

However, completion of the THP Project 25 narrowband network will require a short term extension of the Commission's narrowbanding deadline. The THP urges the Commission to recognize that the above implementation program warrants such an extension and that the amount of time requested by this waiver petition is reasonable and necessary for the THP to complete the statewide implementation of this network. The Tennessee Highway Patrol therefore respectfully requests the Commission to expeditiously grant this petition for an extension of the January 1, 2013 deadline until January 1, 2016.

Respectfully submitted,



Tracy G. Trott

Colonel

Tennessee Highway Patrol

December 9, 2011