

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

In the Matter of)	
)	
Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012)	PS Docket No. 12-94
)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band)	PS Docket No. 06-229
)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands)	WT Docket No. 06-150

COMMENTS OF THE COMMONWEALTH OF VIRGINIA

The Commonwealth of Virginia, Department of State Police (“Commonwealth”), by its counsel, hereby submits comments on behalf of its Statewide Agencies Radio System (“STARS”) in response to the November 5, 2015 Public Notice (“Public Notice”) in the above matter (DA 15-1253) inviting comments on FirstNet’s ex parte proposal to facilitate the relocation of incumbent public safety communications systems operating in the 758-769, 788-799 MHz spectrum band (“Band 14”).

INTRODUCTION

STARS is a twenty-one state agency public safety grade statewide integrated voice and data system. STARS uses a digital trunked VHF narrowband system, which relies heavily on a 700 MHz digital vehicular repeater system (DVRS) in over 3,000 public safety vehicles to support portable based public safety grade communications. STARS is accordingly an incumbent public safety narrowband system within the new Band 14 public safety broadband spectrum. The Commonwealth, on behalf of STARS, wishes to express its concerns that this incumbent statewide public safety system must be properly protected during the transition of this

spectrum to FirstNet, and adequate and practical procedures must be established by the Commission to ensure a safe transition.

COMMENTS

A. Background

The Commonwealth was one of the jurisdictions which was in the process of deploying a narrowband system in what became the Band 14 public safety broadband spectrum at the time of the Second Report and Order, 22 FCC Rcd 15289, in 2007. The Commonwealth sought and obtained a waiver from the Commission to continue its deployment of STARS (See, Virginia Order, 22 FCC Rcd at 20293 ¶7), and has now spent approximately \$380 million in deployment of the STARS system, which is successfully providing state-of-the-art public safety communications services with true statewide geographic coverage .

The Commonwealth previously filed Comments (May 23, 2013) and Reply Comments (June 7, 2013) in the Commission's 2013 Notice of Proposed Rulemaking in these dockets (28 FCC Rcd 2715), seeking comments on issues such as an appropriate transition mechanism, whether FirstNet should manage the transition process or provide relocation funding, and whether the Commission should establish a hard deadline for relocation.

The Commonwealth's 2013 Comments enthusiastically supported relocation funding by FirstNet, but noted that the recent successful experience of 800 MHz rebanding with an independent transition administrator suggested that an independent transition administrator would be appropriate for Band 14. The Commonwealth also noted in those Comments that if funding was provided for relocation, the implementation issues would be complex in a large statewide transition, and that individual deadlines, not a blanket deadline, would be appropriate.

The Commonwealth repeats these same recommendations from its 2013 Comments and Reply Comments. The Commonwealth further addresses the Commission's specific new questions as follows.

Should FirstNet unilaterally control the cessation of existing public safety operations on Band 14?

The Commonwealth continues to believe that it is not appropriate procedurally to have a new public safety licensee (FirstNet) control at its discretion the transfer schedule of existing public safety licensees. This is not intended as a reflection on FirstNet's ability or good faith, but when a conflict develops between First Net's legitimate needs and timetable, and an existing public safety licensee's legitimate needs and timetable, FirstNet should not be allowed to unilaterally make that decision. Even if FirstNet were to be scrupulously fair in that decision, the process still has an appearance of impropriety. The Commission must be responsible for controlling the transition, or appoint an independent arbiter.

The Commonwealth had originally suggested use of an impartial transition administrator (successfully employed in 800 MHz rebanding transition), but recognizes that it now may be late in the process to fully implement that process here. The solution now is still not to give FirstNet discretion in resolving transition issues, but for the Commission staff to make that decision as a neutral arbiter, or if necessary, appoint a neutral third party to act as arbiter.

The Commonwealth (and other state and local public safety entities across the country) properly licensed this public safety narrowband spectrum and employed it long before the concept of Public Safety Broadband was introduced, or FirstNet created; but without funding to pay for very substantial relocation costs, existing public safety users have been stranded on the existing spectrum. The prospect of federal funding to allow relocation is very welcome news,

but its timing is not yet a certainty. Placing the public safety needs of existing systems, which need to continue to serve their public, at the discretion of a new licensee, without Commission action, is simply inappropriate. Decisions on the continued use of the public safety spectrum by incumbent public safety operators should remain with the Commission, not with FirstNet, however pressing FirstNet's need for the spectrum may be.

What should the timing be for relocation of existing public safety operations?

The Commonwealth has been waiting for years on promised relocation funding, beginning with the D Block auction. Expecting the Commonwealth to relocate a very large statewide system with only a few months warning, and with only a year to accomplish it, is an unreasonable goal given the many lessons learned from the complexities involved in completing 800 MHz rebanding.

The Commonwealth is very pleased that there is finally a realistic prospect for funding, but concerned that i) "hard" deadlines cannot be set based upon the prospect of funding alone, and ii) one size will not fit all when setting a timetable.

The Commonwealth certainly plans to participate in the grant program to obtain funding to move its current Band 14 STARS operations to different spectrum; but if grant applications are due March 21, 2016 (per the tentative CFDA Band 14 Incumbent Spectrum Relocation Program Information), with an approval time of 60-90 days, it could be June 21, 2016, before funding is approved.

Even assuming that the funding and "loaner" equipment requested by the Commonwealth is approved in full, the requirement of a 12-month period of performance under the CFDA grant, or the parallel proposed July 31, 2017 deadline, will be problematic for the reasons hereafter noted. The Commonwealth will make every practicable effort to meet the proposed July 31,

2017 deadline but that date is extremely ambitious. There are massive logistical issues in rebanding over 3,000 DVRS units in vehicles throughout the state. The one-year deadline may be quite reasonable for local county or city public safety entities to reband what may be a comparatively small number of units at one central public safety garage. The Commonwealth would respectfully suggest that a different time period must be used for a statewide licensee with extensive deployment of thousands of mobile units on Band 14 stationed across a vast geographical footprint. The number of statewide systems having this problem may fortunately be small¹, but maintaining public safety service is still critical in those states, and a transition is likely to take longer than 12 months.

To review some of the logistical issues for the Commonwealth, it will first be necessary to have a stock of approximately 200 “spare” vehicular repeater units on hand in order to rotate state agency vehicles in and out of service, and switch out newly reconfigured units for the old filtered units. The vehicular repeater units used by the Commonwealth are provided by a small Canadian vendor, Futurecom, which apparently also supplies the State of Illinois with its DVRS units. The Commonwealth will need 200 spare vintage repeater units (which it does not have in stock), to be used by the Commonwealth only as rotating stock, to be sent to the manufacturer for reconfiguring; and if not the Commonwealth will not be able to meet the deadline. Half the total quantity of the rotating stock (100 units) is the maximum number of units that can be reconfigured per week, elongating the schedule accordingly. Any reduction in the available units of rotating stock will correspondingly increase the scheduled number of weeks during the hardware phase of the reconfiguration project. Repeater units (manufactured by Futurecom) are routinely needed to keep the flow of new cars being built prior to the old ones being taken out of

¹ The Commonwealth is aware that Illinois has a similar situation, though fewer units are involved. See State of Illinois Comments in the Commission’s 2013 NPRM, 28 FCC Red 2715.

service. Units are also distributed throughout Virginia in seven field locations to support maintenance and rotating stock for depot level repairs. Without FirstNet providing “spare” or “loaner” repeaters (manufactured by Futurecom) for 700 MHz reconfiguration, as Sprint did for 800 MHz rebanding, the Commonwealth is unlikely to have the coverage in spares needed to meet the deadline. FirstNet would probably need to order these “spare” units now from Futurecom to have them available in time for a rebanding program commencing in summer 2016, unless there is flexibility in the completion date.

Futurecom has advised the Commonwealth that it is only capable of reconfiguring the hardware on approximately 100 repeaters per week and requires a 200 repeater seed stock to meet that schedule. These spare repeaters will also need to be sent to Futurecom for reconfiguration six weeks prior to the rotating schedule commencing on the Commonwealth’s vehicles. Given there are approximately 3,300 units in Virginia that need to be reconfigured - which will mean vehicles scheduled for installation, and DVRS then sent to and from Canada for reconfiguration and then installed in other public safety vehicles – coordinating replacements across 42,775 square miles is a daunting task to keep on a strict schedule of 100 per week. Other public safety entities requiring rebanding (such as Illinois) may also be demanding that Futurecom reband their units during the same time period, thus further complicating the delicate timeline.

The 509 mobile, portable, and repeater codeplugs for 18 agencies in Virginia using STARS vehicular repeaters must first be developed and tested, which will take several months of effort. A consultant will need to be retained to develop these codeplugs and schedule the rebanding, since the Virginia State Police does not have the available staff to do this on a full time basis for over a year. Commonwealth of Virginia public procurement procedures in

contracting with Futurecom to reconfigure the repeaters and in hiring the consultant must also be followed, none of which can formally commence until a federal grant is approved (presumably at the target date June 21, 2016).

If an expedited procurement process can be utilized, a consultant is hired and a Futurecom order is placed promptly, between codeplug development and manufacturing time, an October 1, 2016 delivery date for the first units would be challenging. The Commonwealth would then have ten months to meet the proposed July 31, 2017 rebanding deadline (assuming that FirstNet can arrange in advance for 200 repeaters from Futurecom that can be dedicated to this project as rotating stock).

It takes about an hour per vehicle to swap the repeater and then update the firmware in the associated mobile and portable radios and then change the codeplugs in all three devices along with asset and configuration management. There can be neither issues with U.S. or Canadian customs nor the weather for the schedule to be maintained. There is no room for contingencies. It is important to note that should a second touch reprogramming of the portable radios be needed as (which was done in 800 MHz rebanding to keep tactical conventional communications on the same radio frequency), this action cannot be completed within the proposed deadline. Should there be a public safety crisis in Virginia (or adjacent jurisdictions where the Commonwealth has been called to help), then the project would have to be temporarily halted for the duration. Supporting the 2016 presidential election process will also cause resource and scheduling issues because of our security role whenever candidates visit Virginia.

Given the complexity of logistical issues, a liberal waiver or extension policy (when justified), administered by the Commission or an independent arbiter, should be an integral part of any timetable.

The Commonwealth would suggest that i) any deadline should not be set as a fixed calendar date, but expressed in terms of a number of months from the date when a federal CFDA grant is made available to an incumbent public safety entity, providing that incumbent with the necessary funding for relocation, and ii) that separate deadlines be established for local public safety incumbents as opposed to statewide public safety incumbents (e.g., 12 months for local systems and an optimistic 18 months for statewide systems) based upon the recent and parallel experience in 800 MHz rebanding.

CONCLUSION

The Commission (or an independent arbiter appointed by the Commission) must determine competing interests of public safety licensees, and not allow FirstNet to do this in its discretion. Any timetable established cannot be set now as an arbitrary date on the calendar, but must be a fixed time period after funding becomes available, with different time periods for local public safety systems and statewide systems.

Respectfully submitted,

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF STATE POLICE

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CERTIFICATE OF SERVICE

I hereby certify that on this 8th day of December, 2015, a copy of the foregoing
Comments of the Commonwealth of Virginia was sent by email to Roberto.mussenden@fcc.gov.



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