

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

In the Matter of:

Implementation of Sections 309(j) and 337 of	)	
The Communications Act of 1934 as Amended;	)	WT Docket No. 99-87
Promotion of Spectrum Efficient Technologies	)	
On Certain Part 90 Frequencies.	)	

**REQUEST FOR MODIFICATION OF GRANTED WAIVER OF  
COMMISSION RULES REGARDING THE SPECTRAL EFFICIENCY OF  
PRIVATE LAND MOBILE RADIO SERVICES IN THE 150-174 AND 450-470  
MHZ BANDS, REQUIRING 12.5 KHZ CHANNEL BANDWIDTH OR  
EQUIVALENT TECHNOLOGY BY JANUARY 1, 2013**

**WAIVER—EXPEDITED ACTION REQUESTED**

**TO : The Commission**

**I. INTRODUCTION**

The Jefferson County Missouri 911 Board, (County) respectfully requests an amendment to the previously granted waiver of the January 1, 2013 narrowband deadline<sup>1</sup>. The County supports the Commission's efforts to establish greater spectral efficiency, and has been taking measures to transition to a new 800 MHz trunked radio network and to comply with narrowband standards on spectrum that is to be retained. As described in this PETITION, certain unique operational needs and situations, including site acquisition and zoning compliance, have impacted the County's ability to meet certain aspects of the GRANTED

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<sup>1</sup> ORDER, DA12-245, Public Safety and Homeland Security Bureau, February 21, 2012

WAIVER, which extended the narrowband compliance date for the RETURNED frequencies to December 31, 2013.

## II. BACKGROUND

The Commission, in the waver approval ORDER, conditioned the grant to required filing by the public safety licensees and the County<sup>2</sup>.

1. Any licensee in the St. Louis Urban Area seeking to have the waiver apply to its facilities must file a letter in ULS confirming that it consents to the terms of this Order and agrees to be bound by them
2. The County must file with the Commission a list of VHF/UHF frequencies and/or licenses that will be relinquished.

These conditions were met with the timely filing of all requested documents. This included a listing of frequencies to be RETAINED and frequencies to be RELINQUISHED

The County and the public safety licensees within the county that consent to the terms of the waiver ORDER are continuing to work in earnest to construct and operate the proposed 800 MHz trunked radio system. It is still anticipated that there will be two groups of below 470 MHz legacy frequencies and two narrowbanding scenarios.

1. Operations that are not planned to be incorporated into the 800 MHz trunked public safety system will continue to utilize frequencies in the 150-470 MHz range.
2. Operations that are currently utilizing frequencies in the 150-470 MHz range and will be transitioned to the new 800 MHz public safety trunked system.

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<sup>2</sup> ORDER at para 14

The County was guided by the Commission's statement that the minimum time for *narrowband* extension should be requested. As such, the County proposed a very conservative time line for completion of the 800 MHz trunked system and the narrowbanding of RETAINED frequencies. The County allowed minimal time for purchasing and implementation slippage. The County proposed and the Commission accepted that the frequencies to be RETAINED would be taken to narrowband by the required date of January, 1, 2013<sup>3</sup>. Only those frequencies that were to be relinquished would be extended to the waver date of December 31, 2013, at which time the frequencies would be abandoned.

The County seeks a modification to that ORDER which would extended both the RETAINED and RELINQUISHED frequency narrowband requirement to the end date of the WAIVER.

### **III. REASON AND IMPACT OF REQUESTED MODIFICATION**

#### **A. OPERATIONS THAT WILL TRANSITION TO NARROWBAND**

The County had anticipated that retained frequencies would be narrowband by the required date of January 1, 2013. Purchasing issues have delayed the implementation of narrowband because the equipment needed to operate in a narrowband mode has been procured as part of the master contract for the 800MHz interoperable radio system. This approach leveraged financial resources so that both objectives, the 800MHz radio system and narrowbanding channels to be retained could be accomplished using the minimum of public funds.

Specifically, narrowband alert paging receivers, necessary to alert public safety personnel of

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<sup>3</sup> ORDER at para 11.

an emergency situation and begin the response process, are not expected to be delivered until mid 2013, and the narrowband base station network required to alert these receivers will not be complete until the system is accepted. Also, continued operation on frequencies below 470 MHz will require dual band mobile and portable radios, which include 800 MHz trunked operation as well as conventional operation in spectrum below 470 MHz. These dual band radio units provide interoperability with adjacent agencies that are not participating with the Tri-County<sup>4</sup> 800 MHz trunked network of networks. These dual band radio units are not expected to be delivered and installed, until mid to late 2013.

The extension of the narrowband waiver transition date to include those frequencies to be retained would be in the public interest of ensuring the safety and well-being of County residents, businesses, and visitors; and to the safety and efficiency of the public safety first responders.

#### **B. OPERATIONS THAT WILL TRANSITION TO THE TRUNKED SYSTEM**

The County has identified in a prior filing with the Public Safety and Homeland Security Bureau specific frequencies expected to be relinquished at the end of the narrowband waiver, after those operations are transitioned to the new 800 MHz trunked radio system. There is no change proposed to these specific frequencies or to the narrowband waiver attached to these frequencies by the current ORDER.

### **IV. PROJECTED IMPACT TO OTHER LICENSEES**

#### **A. Impact to existing licensees.**

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<sup>4</sup> St Louis County, St Charles County, Jefferson County 9-1-1, and the Independent City of St. Louis

The County anticipates that there will be no negative impact to any other licensee that is licensed and operating today. The County and the allied public safety licensees are currently licensed in wideband (20 kHz maximum occupied bandwidth) and will continue in wideband operation during the waiver. There will be no change to other existing licensees operation or interference level. Quite the contrary, as other existing licensees on adjacent channels comply with the FCC's narrowband mandate; the possibility of receiving interference from the County or other allied licensees will be significantly reduced.

**B. Impact to a future licensee at UHF (450-470 MHz).**

The County and/or other allied public safety licensees are currently operating on UHF channels with wideband (20 kHz maximum occupied bandwidth) emission. The FCC has authorized interstitial channels at UHF that are spaced at 12.5 kHz on center. Many licensees have applied for authority to operate narrowband systems on the offset channels and are using geographic spacing to attain about 30 dB of Adjacent Channel Protection, which is the Adjacent Channel Coupled Power (ACCP) value assumed for UHF<sup>5</sup>. There will be no impact to these narrowband stations due to the continued operation of the County and other allied public safety agencies at wideband. There will be an undermined impact on the ability for new licensees to license channels at 12.5 kHz offset to the County and allied licensee frequencies, without the need to consider geographic spacing to attain adjacent channel protection. Without knowing which potential licenses may apply for the UHF spectrum, it is not

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<sup>5</sup> See FCC DA97-2006 and Letter from Larry A. Miller, President, LMCC, to Daniel B. Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission (Sept. 10, 1997).

possible to quantify the degree of impact. Since most of the 12.5 kHz UHF channels are already licensed with geographic spacing from the County, the only remaining area viable to new licensees would be within the County boundary. The modification of narrowband transition requested would only affect the RETAINED spectrum, as the RETURNED spectrum is presently extended to December 31, 2013. The County knows of no licensees waiting to obtain licenses within the current coverage area that would be impacted by a delay in narrowbanding.

**C. Impact to a future licensee at VHF (150-174 MHz).**

The County and/or allied public safety licensees are currently operating on VHF channels with wideband (20 kHz maximum occupied bandwidth) emission. The FCC had previously authorized channels at VHF that are spaced at 15 kHz on center; and in consideration of narrowbanding has authorized interstitial channels at 7.5 kHz on center. Both of these channel centers are impacted by a wideband emission of 20 kHz bandwidth. Many licensees currently exist operating both wide and narrowband systems on the 15 and 7.5 kHz spaced channels, respectively, and are using geographic spacing to attain about 30 dB and 60 dB of Adjacent Channel Protection, which is the Adjacent Channel Coupled Power (ACCP). There will be no impact to these currently licensed stations due to the continued operation of the County or any of the allied public safety licensees at wideband. There will be an undermined impact on the ability for new licensees to license channels at both 15 and 7.5 kHz offset to the County and allied licensee frequencies, without considering geographic spacing to attain adjacent channel protection. Without knowing which potential licenses may

apply for the VHF spectrum, it is not possible to quantify the degree of impact. Since most of the 15 and 7.5 kHz VHF channels are already licensed, with geographic spacing from the County, the only remaining area viable to new licensees would be within the County boundary. It is noted that channels spaced at 7.5 kHz from the current County and allied public safety licensee frequencies will still require geographic spacing due to bandwidth overlap, which is notably higher than the bandwidth overlap between 15 kHz spaced channels and wideband emission. The County has consulted with the State of Missouri project team and we have determined that the frequencies intended to be retained will not impact the frequency plan for their system currently in implementation. The County will continue to work with the State of Missouri and other Public Safety agencies to minimize any impacts that extended wideband transmissions will have to the operation of other systems.

## **V. CONCLUSION**

As shown above, the County and allied public safety licensees have worked diligently and in good faith to comply with the Commission's narrowbanding WAIVER, while still maintaining current systems at the highest performance levels.

The County seeks a modification of the WAIVER ORDER to extend the narrowband required implementation date to frequencies that are RETAINED, so as to match the date granted to the frequencies to be RETURNED. This modification will permit an orderly transition to the new radio equipment required to properly implement narrowband operation and will have minimal, if any, effect upon other licensees or potential licensees.

For the reasons stated and in consideration of the public safety issues involved, the Commission is PETITIONED to grant the MODIFICATION of the NARROWBAND WAIVER ORDER, bringing all spectrum into compliance or RELINQUISHED by December 31, 2013.

Respectfully submitted,

*Travis Williams*  
*Jefferson County 911*

APPENDIX A

**FREQUENCIES TO BE RETAINED FOR SPECIAL OPERATIONS AND INTEROPERABILITY THAT WERE ORIGINALLY REQUIRED TO BE NARROWBAND BY JANUARY 1, 2013, FOR WHICH A MODIFICATION IS REQUESTED**

Licensee	Frequency	Call Sign
Antonia Fire	153.830	KXQ998
Desoto Police	153.830	KWJ283
Desoto Rural Fire	154.145	WNZU274
Antonia Fire	154.280	KXQ998
Cedar Hill Fire	154.280	KXB533
Crystal City Fire	154.280	KNAD864
Desoto Police	154.280	KWJ283
Dunklin Fire	154.280	KXJ302
Herculaneum Fire	154.280	KNDS862
High Ridge Fire	154.280	WPMG977
Hillsboro Fire	154.280	KZR659
Jefferson County 911	154.280	WPBK501
Mapaville Fire	154.280	WNBS237
Rock Community Fire	154.280	KDA374
Saline Valley Fire	154.280	KRO456
Antonia Fire	154.310	KXQ998
Cedar Hill Fire	154.310	KXB533
Crystal City Fire	154.310	KNAD864
Dunklin Fire	154.310	KXJ302
Herculaneum Fire	154.310	KNDS862
High Ridge Fire	154.310	WPMG977
Hillsboro Fire	154.310	KZR659
Jefferson County 911	154.310	WPBK501
Jefferson County 911	154.310	WPYY895

Mapaville Fire	154.310	WNBS237
Rock Community Fire	154.310	KDA374
Saline Valley Fire	154.310	KRO456
Cedar Hill Fire	154.430	KXB533
Antonia Fire	155.115	KXQ998
Cedar Hill Fire	155.115	WPBR238
Desoto Police	155.115	KWJ283
Hillsboro Fire	155.115	WNPJ721
Saline Valley Fire	155.115	KRO456
Arnold Police	155.370	KUV618
Crystal City Police	155.370	KNAD896
Desoto Police	155.370	KAH451
Jefferson County 911	155.370	KGK601
Arnold Police	155.475	KUV618
Crystal City Police	155.475	KNAD896
Desoto Police	155.475	KAH451
Jefferson County 911	155.475	KGK601
Desoto Police	155.640	KAH451
Jefferson County 911	155.640	KGK601
Jefferson County 911	155.640	WPYY895
Crystal City Police	155.730	KNAD896
Jefferson County 911	155.730	KGK601
Jefferson County 911	155.830	WPBK501
Jefferson County 911	156.150	KGK601
Jefferson County 911	156.150	WPYY895
Desoto Police	158.775	KXF531
Hillsboro Police	159.2325	WQJB368
Jefferson County 911	160.095	KNNJ408
Jefferson County 911	160.095	WPYY895
Arnold Police	453.600	WQHD958
Arnold Police	453.800	KUV618

Arnold Police	458.800	KUV618
High Ridge Fire	460.5875	WPGT793
High Ridge Fire	465.5875	WPGT793
Crystal City Police	154.725	KNAD896