

**RESOLUTION 09-0921-05**

**Authorizing Road Department Radio Systems/Equipment Upgrades**

**WHEREAS**, the Liberty Township Road Department budget has been submitted and approved by the Board of Trustees and funds are available to purchase the requested radio systems/equipment upgrades, and

**WHEREAS**, there is a need to update and improve the Road Department radio systems/equipment, and

**WHEREAS**, the Road Department is requesting that the Trustees authorize the purchase of the radio systems/equipment upgrades, and

**NOW, THEREFORE BE IT RESOLVED BY THE LIBERTY TOWNSHIP BOARD OF TRUSTEES, DELAWARE COUNTY, OHIO**, that the Road Department is authorized to purchase the radio systems/equipment upgrades from B & C Communications, 1330 Stimmel Road, Columbus, OH 43223 for a total cost not to exceed \$4,087.36, using Road Department funds.

This Resolution shall be in force and become effective immediately upon its execution.

Motion made by Mann and seconded by Sybert.

Vote: \_\_\_\_\_ Ms. Guzzo yes Mr. Mann yes Mr. Sybert

9/21/09  
Date

Robert Mann  
Robert Mann, Trustee

Curtis J. Sybert  
Curtis J. Sybert, Trustee

absent  
Peggy Guzzo, Trustee

CERTIFIED BY:

Mark S. Gerber  
Mark S. Gerber, Fiscal Officer

## More Info on The FCC Narrowbanding Mandate What You Need to Know to Assure Radio Communications in 2013

### What is Narrow banding?

Private land mobile radio (LMR) systems - including municipal government and State and local public safety systems - use blocks of radio spectrum called channels. Historically, LMR systems have used 25 kHz-wide channels. In December 2004, the Federal Communications Commission mandated that all private LMR users operating below 512 MHz move to 12.5 kHz narrowband voice channels and highly efficient data channel operations by January 1, 2013. This migration complements a National Telecommunications and Information Administration mandate for more rapid Federal agency migration to 12.5 kHz narrowband operation by January 1, 2008. The earlier Federal deadline affects State and local FCC licensees that interface or share frequencies with Federal radio systems.

Using narrowband channels will ensure that agencies take advantage of more efficient technology and, by reducing channel width, will allow additional channels to exist within the same spectrum space, as illustrated in figure 1.

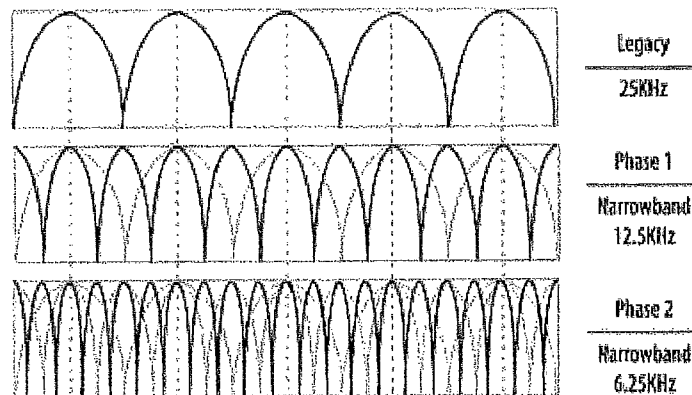


Figure 1: Narrowband channels allow additional channels to exist in the same spectrum.

### Who is Affected:

The FCC Narrow banding rules affect all operators of land mobile radios (LMR) that use channels between:



330 Stimmel Road  
Columbus, OH4223  
(614) 276-552  
(614) 276-0580 fax

---

- 150 and 174 MHz
- 421 and 512 MHz

### **Deadlines / Key Dates:**

To phase in the migration deadline of January 1, 2013, the FCC has established interim deadlines.

The first important deadline is **January 1, 2011 (Manufacturer Date Certain)** after which:

- The FCC will not grant applications for new voice operations or applications to expand the authorized contour of existing stations that use 25 kHz channels. Only narrowband authorizations will be granted.
- The FCC will prohibit manufacture or importation of new equipment that operates on 25 kHz channels. This will reduce the availability of new equipment for legacy radio systems and will affect how agencies maintain and upgrade older systems.
- New equipment submitted for FCC type-acceptance must be 6.25/6.25 kHz (e)
- New system applications must be 12.5 kHz or less
- No 25 kHz system expansion permitted

### **January 1, 2013 (Licensee Date Certain)**

- All existing licenses must operate on channels with a bandwidth of 12.5 KHz or less (narrowband). Failure to comply with the January 1, 2013 deadline results in cancellation of license.
- I/B and PS 150-512 MHz incumbents must migrate to 12.5/12.5 kHz (e) or less
- It is unclear what happens to licensed 25 kHz systems after this date certain

Land Mobile Radio Systems still using wideband channels as of January 1, 2013, risk the following:

- **Loss of Radio Communications**
- **Substantial FCC Fines**
- **Revocation of FCC Licenses**

### **Planning for the Move to Narrowband**

Land Mobile Radio System Operators (both public safety and nonpublic safety) need to aggressively develop a strategy to meet narrowband deadlines to avoid cancellation of existing wideband FCC authorizations. Although the migration deadline may seem far off, the long lead time and interim deadlines make it necessary for you to plan well in advance.

### **Assess Current Equipment and Start Planning.**

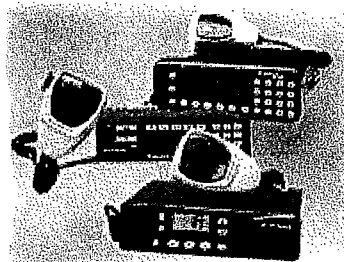
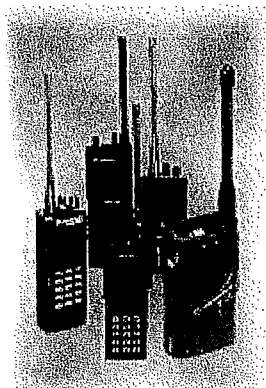
To prepare for the migration, organizations should start assessing their radio systems and planning for replacements or upgrades. They should inventory their current equipment to ascertain what can be converted to 12.5 kHz and what will need to be replaced before January 1, 2013. Most new equipment has the capability for both 25 kHz and 12.5 kHz operation because any VHF/UHF radio equipment accepted by the FCC after February 14, 1997, had to have 12.5 kHz capability. The 2.5 kHz narrowband equipment is available in both conventional analog FM and digital formats (such as Project 25), so narrowband conventional FM systems will be compliant. Local governments should develop contingency plans to accommodate system changes for both public safety and nonpublic safety systems.

### **Obtain New or Modified Licenses.**

To move to narrowband operations, organizations must apply for new frequencies or modify existing licenses. An organization that is licensed for a 25 kHz-wide channel is not guaranteed two 12.5 kHz channels. Licensees will have to justify to the FCC why they need additional channels. Consideration of applications for new narrowband licenses will follow the same process as a new license application. As organizations migrate to narrowband operation, however, the pool of available frequencies will increase.

### **Motorola Radios that are Not Narrowband Capable**

Radio equipment manufacturers have been aware of the pending narrowband mandate since 1997 and most of the equipment purchased in the last five years will be capable of changing to narrowband operation simply by reprogramming.





330 Stimmel Road  
Columbus, OH4223  
(614) 276-552  
(614) 276-0580 fax

Following is a list of Motorola radios that you may still have in service and are **NOT** narrowband capable:

Portables	Mobile	Bases & Repeaters
CP100	GM300	Flexar
GP300	M100	Micor
GP350	M120	Mocom 70
HT50	M206	Motrac
HT600	M214	MSF5000
HT90	M216	
MT1000	Maratrac	
P100	Maxtrac	
P110	Mostar	
P200	SM120	
P50	SM50	
P50+	Spectra Conventional	
SP50		
Saber		

*Please note that some older versions of the HT1000 and VISAR portable radios are programmable for narrowband only on existing channels. However, they may not be compatible if new narrowband frequencies are added.*

For more information please contact

Ben Jackson  
B&C Communications  
1330 Stimmel Rd  
Columbus, Ohio 43223

614-276-5552 x 339



**COMMUNICATIONS**

1330 Stimmel Road  
Columbus, OH 43223  
(614) 276-5552  
(614) 276-0580 fax

**PROPOSAL FOR:**

Liberty Township  
7764 Liberty Rd., Powell, Oh.

Date:  
8/25/2009

ATTENTION JOHN WALKUP

ITEM	QTY.	MODEL #	DESCRIPTION	UNIT PRICE	EXTENDED
1	1	XPR8300	MOTOTRBO REPEATER	2,000.00	2,000.00
2	1	RFE4000	DUPLEXER	292.00	292.00
3	1	0112004B04	N MALE TO N MALE CABLE	73.80	73.80
4	1	0112004U04	N MALE TO BNC CABLE	50.00	50.00
5	1	66392	DB-404 ANTENNA	388.00	388.00
6	1	63835	TRIPOD	61.00	61.00
7	1	20573	POLYPHASER	62.00	62.00
8	1	36158	MOUNT KIT	10.91	10.91
9	4	431926	N MALE CONNECTORS	9.25	37.00
10	25 FT	59520	TIMES MICROWAVE LMR400	0.95	23.75
11	1	RRX4038	SURGE PROTECTOR	52.00	52.00
12	1	RKN4152	BATTERY BACKUP CABLE	96.00	96.00
13	1	DCM0035	DEEP CYCLE BATTERY	85.90	85.90

OPTIONAL WIRE LINE REMOTE

TOTAL EQUIPMENT	3,232.36
MISC	60.00
INSTALLATION	745.00
TAX	TBD
FREIGHT	50.00
<b>TOTAL</b>	<b>\$4,087.36</b>

**Terms:** Net 30 days after date of Invoice.

**Proposal valid 30 days.**

**SUBMITTED BY:**

BEN JACKSON  
SALES REPRESENTATIVE  
**B & C Communications**  
800-829-9924 or 614-276-5552