

THE FCC NARROWBANDING MANDATE

What You Need to Know to Assure Radio Communications in 2013



What is Narrowbanding?

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.

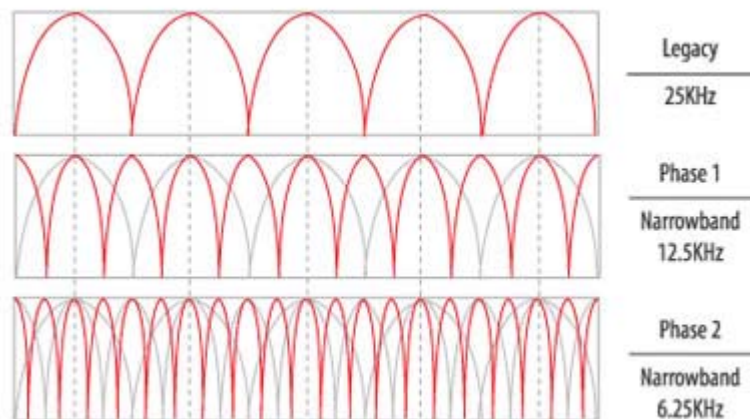


Figure 1

Narrowband channels allow additional channels to exist in the same spectrum.

Who is Affected?

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

- 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.

Contact Us Today!!!

REMEMBER after 01/01/2011 you may no longer be able to purchase communication equipment capable of 25 kHz operation. Your migration plan to 12.5 kHz should be in place prior to this date.

Staley Communication Inc. is here to assist your organization plan a migration plan to be compliant with future FCC regulations. Staley has a single point of contact to answer your Narrowbanding questions and coordinate required resources to assist you to assure your communications system and FCC licenses are compliant.

Call us today at [800-999-3723](tel:800-999-3723) and ask for our [Licensing Help Desk](#).

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.



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	Fexar
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.

