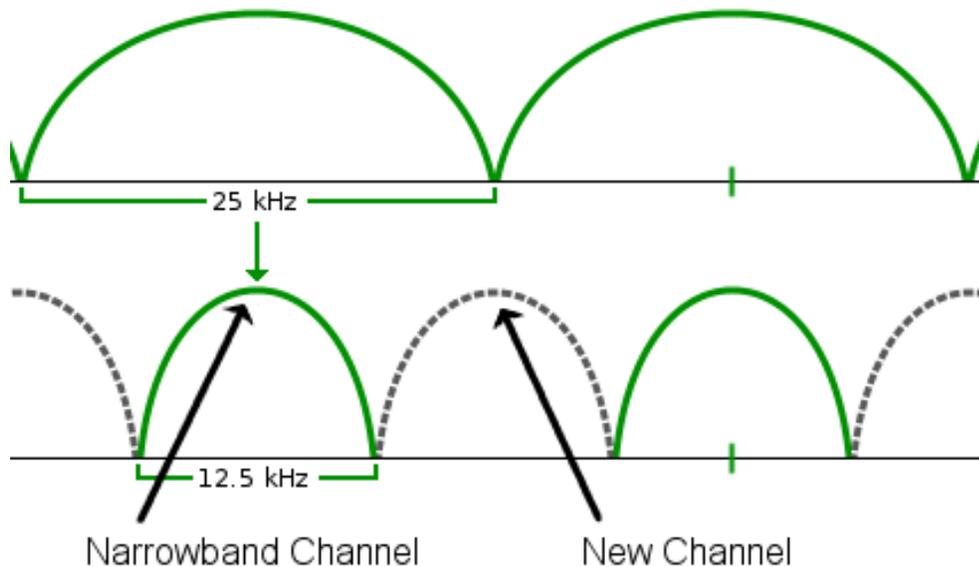


Are you ready for the FCC 2013 narrowband mandate?

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Many individuals and businesses use two-way radio systems for communication and safety. Most users operate on either the VHF (150-174 MHz) or UHF (421-512 MHz) frequency band. These frequency bands are divided into channels that are at the present time 25 kHz wide.

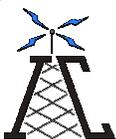
In December of 2004, the Federal Communications Commission (FCC) mandated that all two-way radio users operating in the VHF and UHF bands move from 25 kHz wideband channels to 12.5 kHz narrowband channels by January 1, 2013. In other words, the current 25 kHz channels must be cut in half. In the radio industry this is referred to as 'narrowbanding'. The figure below is an example of a wideband and narrowband



channel.

Today, the VHF and UHF bands are very crowded and often there are not enough channels available for users to expand their existing systems or implement new systems. The purpose of the mandatory narrowbanding is to promote more efficient use of the VHF and UHF land mobile bands.

As users convert from wideband to narrowband, new channels will become available for other users who need them. It also is hoped that the narrowband conversion will encourage the development of new technologies that will further promote efficient spectrum use, be less susceptible to interference, and provide users with enhanced capabilities.



Are you ready for the FCC 2013 narrowband mandate?

Narrowbanding is not optional. A two-way radio user cannot simply ignore the FCC's narrowbanding rules. If an individual is using the VHF or UHF bands and not currently operating narrowband equipment, they must narrowband their radios. Existing wideband systems must to be modified by January 1, 2013. Non-compliance will be considered a violation that could lead to FCC enforcement action, which may include monetary fines, or loss of license.

In many cases, radios operating narrowband will not exhibit the same 'talk power' (that is, the ability to communicate over a given distance or area) as today's wideband radios. The outer fringes of the radio coverage area will most likely be affected. Simply put, where once there was marginal coverage, there may be no coverage. This is perhaps the most negative technical impact of narrowbanding. Therefore, users should determine their narrowband radio coverage area and make any system changes before the mandate becomes effective.

The conversion from wideband to narrowband requires radios that are capable of transmitting on a narrowband channel. Many current two-way radios are already 'dual bandwidth' dual bandwidth" capable – meaning they can be programmed to operate in wideband or narrowband. Therefore, those having 'dual bandwidth' capable radios do not need to buy new radios. Unfortunately, older wideband only radios must be replaced.

Using mixed wideband and narrowband radios on the same channel is not recommended. Voice communication from a wideband radio to a narrowband radio will sound loud, distorted, or inaudible. On the other hand, narrowband voice communication to a wideband radio will be soft, quiet, or missed. Further, narrowband radio tones or codes may not 'open-up' the receiver of a wideband radio.

Be cautious of solicitations from companies requesting money to modify an FCC license, companies claiming narrowband radios must be digital, or companies indicating that newer radios are not narrowband capable.

The rush to meet the deadline will likely cause equipment shortages as manufacturers struggle to meet the demand and long wait times as customers line- up for radio shops to schedule their radio narrowbanding. Individuals and businesses need to start planning now to migrate to narrowband channels. The steps necessary to prepare for narrowband are:

- Assess your radio equipment and determine if it is narrowband capable.
- Develop a plan for upgrading any wideband only radios to 'dual bandwidth' capable radios.
- Determine if your coverage will still be adequate after narrowbanding.
- Modify your FCC license for narrowbanding.
- Plan a day to have all your radios programmed from wideband to narrowband.
- Contact your local two-way radio dealer for assistance with narrowbanding.

