

## Radio Frequency Spectrum Efficiency “Narrowbanding”

### **Briefing Paper**

*Gila Regional Medical Center*

Silver City, NM.

#### **The Question:**

Are New Mexico State and Local agencies, institutions and organizations ready for FCC Part 90 UHF/VHF Radio Systems “Narrowbanding Mandates?”

#### **The Issue:**

The FCC has issued an Order mandating that all Part 90 business, educational, industrial, public safety, and state and local government VHF (150 – 174 MHz) and UHF (421 – 512 MHz) private land mobile radio (PLMR) licensees convert their radio system operations from legacy wideband (25 KHz.) to narrowband (12.5 KHz.) or the equivalent spectrum utilization by Jan. 1, 2013.

#### **In a Short:**

The FCC’s mandates require that all wideband-only conventional or trunked VHF and UHF radios, including handheld portables, vehicle-mounted mobiles, dispatcher stations, wireless data, telemetry, or supervisory control and data acquisition (SCADA) link radios (called *subscriber* radios) and any associated wideband-only conventional or trunked base or repeater stations (called *infrastructure* radios), be replaced and operate in narrowband emission mode prior to the 2013 date to continue legal use of Part 90 radio frequencies. Upon that date, FCC radio system licenses must also have been modified to reflect the change to narrowband emissions and operation.

#### **Migration progress to date:**

Over the last several years, many licensees have started the narrowband migration process by deploying dual-mode *subscriber* radios, through an attrition process. However, this process has addressed only the **first step** of a multi-step process.

#### **Prevailing Misconceptions:**

FCC. Report & Order does not require licensees to change to new radio frequencies or different frequency bands, nor does it require moving from analog to digital or from a conventional to a trunked radio system. (These are, however, alternative radio system options that some licensees may want to more fully explore with **the guidance of qualified radio communications system professionals.**) The Order also does not mean that the licensees need to replace all current radio system equipment. It would however only be prudent to give consideration to the replacement of any soon to be, non-compliant equipment.

**Obstacles to overcome:**

In many instances, however, the need to address the deferred replacement of wideband-only *infrastructure* radios may have inadvertently been overlooked or even forgotten by some licensees or radio system managers. This is particularly true when it comes to the many smaller governmental agencies, organizations and institutional users of two way radio systems who typically don't keep up with current FCC Rules or the responsibilities that go along with being a Part 90 licensee, and, who quite often simply take the use and benefit of their radio systems for granted.

**Migration Planning:**

It is essential that the State take a leading role in developing a migration plan to include all State and Local Agencies and Institutions, as well as the development of an adequate budget to address the next steps necessary to complete the narrowband migration process and become fully FCC compliant.

These steps include replacing any remaining wideband-only *subscriber* radios still being used; procuring and installing narrowband base stations, repeaters or other *infrastructure* radios as needed; preparing a well-planned and coordinated approach to re-programming all radios to narrowband operation; and modifying a radio station license to reflect any new emissions designators.

**Summery:**

Please be cognizant of the fact that the 2013 deadline is not that far away, particularly if funding needs to be secured and budgets prepared or, when any operations dependent on uninterrupted radio communications may be jeopardized.

As deadlines approach, few budget cycles remain for the capital expenditures necessary to upgrade the supporting *infrastructure* radio equipment, which is imperative for the continuance of the operation of any radio system.

Agencies and Institutions (State and Local) as well as any other organizations that recognize and appreciate the value of their Part 90 two-way voice and data radio communications systems should be strongly advised by the State Executive and Legislative body to not wait until the last minute to begin or complete the narrowbanding process. By waiting, they are risking not only the loss of use of their current radio frequencies, but the return on the investment (ROI) and associated benefits provided by their radio system equipment as well.

Respectfully submitted,

Jim Hand  
Project Development Assistant  
Gila Regional Medical Center  
Silver City, NM 88061

