

# Public Safety Communications Commission



## Narrowbanding Questions and Answers

### Inside this Issue:

- Narrowbanding Questions and Answers pg 1
- Narrowbanding Questions and Answers pg 2
- Upcoming Events Pg 3
- Narrowbanding Questions and Answers pg 3
- WyoLink Training pg 4
- Fremont County pg 4
- How to join WyoLink Pg 4



We would like to thank you for your interest in Wyoming's PSCC. We welcome any questions, comments, or suggestions you may have to this publication. You may direct them to Bob Symons at 307.777.5065 or by email at [bsymon@wyo.gov](mailto:bsymon@wyo.gov)

### 1. What is mandatory narrowbanding?

The FCC is requiring licenses in the private land mobile VHF (150-174 MHz) and UHF (421-430 MHz and 450 – 512 MHz) bands to operate on channel bandwidths of 12.5 kHz or less on or before **January 1, 2013**. Any radio equipment that is not capable of operating on channels of 12.5 kHz or less will need to be replaced.

### 2. Narrowbanding Myths

**Myth #1** – Licensees must implement digital equipment – There is no FCC requirement to digital as part of the narrowbanding process. The licensee does not have to convert to digital. There may be coverage issues that could be improved with digital operation, each agency should consider and evaluate digital operation when planning for narrowbanding.

**Myth #2** – Each licensee will end up with twice as many channels. – FCC narrowbanding requirements will not necessarily entitle you to two 12.5 kHz channels where previously you had one 25 kHz channel. If you would like to add additional channels to your system, you will need to justify your need in accordance with the FCC's rules.

**Myth #3** – Failure to narrowband will result in secondary status – False, failure to narrowband will be illegal and stations will have to go off the air

### 3. Narrowbanding is not optional.

Licensees cannot simply ignore the FCC's narrowbanding rules. Your existing wideband system will need to be modified or replaced by January 1, 2013, and failure to comply may result in serious consequences. After January 1, 2011 applications for new or modified operations must provide one voice path per 12.5 kHz

### 4. Interference may occur

Prior to January 1, 2013, your operations on wideband equipment may become subject to interference from new adjacent channel narrowband systems.

### 5. Your transition may be gradual

You may make the transition over time by purchasing and installing 'dual band' equipment (equipment that operates in both 25 kHz and 12.5 kHz bandwidth modes). Dual band equipment can operate on your old 25 kHz and the new 12.5 kHz channels.

## Narrowbanding Questions and Answers

Continue from page 1

### 6. Buyer Beware

Equipment vendors may try to offer special pricing for new or used equipment that is capable of operating only in a 25 kHz bandwidth mode. **DO NOT BUY THIS EQUIPMENT.**

### 7. Are there any exceptions to the narrowbanding requirement?

The only general exception is that “paging only” channels are not subject to the FCC’s narrowbanding requirements. In the public safety radio pool, only the 152.0075 MHz and 157.450 MHz channels are designated as “paging only”.

You may be conducting paging operations on channels that are not designated as ‘paging only’, the exception does not apply to these channels.

### 8. Coverage problems

Operations may be affected by reduced coverage, there could be a significant reduction in coverage after narrowbanding, requiring additional transmitter sites or voting receivers. This will depend on each situation and narrowband wideband radios will not interoperate together well. Adjacent channel protection may not be as good as before.

### 9. 2011 Requirements

- (1) Licensees can no longer apply for new or modification license applications that exceed 12.5 kHz or equivalent efficiency.
- (2) Single-mode and multi-mode transmitters that operate at an efficiency mode exceeding 12.5 kHz can no longer be manufactured in or imported into the United States;
- (3) Manufacturer applications for Part 90 certifications must include a spectrum efficiency standard of one voice path per 6.25 kHz of channel bandwidth.

### Planning Agency Conversion to Narrowbanding

1. **Conduct a full inventory of all radios in your system** – Include all hand held, vehicle mounted, consollettes, base stations, repeaters, SCADA and/or wireless data radios. Note the make, model and serial number of each radio.
2. **Identify equipment that must be replaced** – Your radio service vendor may provide assistance in determining which models are capable of being reprogrammed for narrowband operation and which radios need to be replaced. Land mobile radios manufactured after 1997 should be narrowband ready. However, it is recommended that all currently used radios be verified as being narrowband capable. Initiate the process of budgeting for and procuring narrowband capable replacement radios.
3. **Develop a migration plan to strategically convert from wideband to narrowband** – This plan needs to establish a timetable as to how and when your agency will carry out the transition. The replacement and installation of any new equipment and the actual reprogramming of all radios in the system should be included in the plan. The agency should coordinate their conversions activities and plans with agencies which have interoperability agreements with the agency. The agency service vendor will need to be included in the planning process to ensure a smooth transition.

## Upcoming Events

Calendar posted @ <http://pscc.wyoming.gov>

12/2/09 \* 12/28/09 \* 1/25/10 Project Team Meetings 10 am–12 pm

@ WYDOT Project Development Conference Room in Administration

Building—2nd Floor

This is a monthly meeting held by the WyoLink Project Manager and Motorola. The meeting gives an overview of the progress over the past month, what is taking place in the near future, and any

12/8/09— PSCC Meeting—Video Conference—Wyoming State Library—Cheyenne, WY Remote locations in Casper, Jackson, Lander, Rock Springs and Torrington

This is the quarterly general business meeting of the PSCC. Each committee gives a standing report; any concerns or problems are discussed and action taken, if needed. A progress report on the WyoLink project is also presented.

### Narrowbanding Questions and Answers (Cont from page 2)

4. **Modify your FCC Radio Station License** – Before you can implement your narrowbanding you will need to apply to the FCC to modify your FCC license(s) in accordance with your new system specifications. In many cases, agencies will be operating on the same central operating frequencies as currently being used for their existing wideband system. In this case, the modification to the FCC license will remove and wideband emission designators and replace them with narrowband emission designators. Any other modifications to your system (operating power, antenna heights, or location changes) may require additional FCC requirements. Your radio service vendor or frequency coordinator may provide additional information on meeting the FCC license requirements.

5. **System implementation** – Once the FCC grants your application, you will have twelve (12) months in which to complete your narrowband migration. The FCC rules also require you submit a notification of Construction on FCC Form 601, Schedule K within 15 days of expiration of your 12 month construction period.

The goal of the PSCC Newsletter is to disseminate information to all agencies and individuals interested in the PSCC. To reduce printing and postage costs all issues will be in electronic format. If you would like to continue receiving the PSCC newsletter please visit <http://pscc.wyoming.gov> and click on E-mail/Newsletter sign up. This will be a quarterly, electronic publication distributed after every Commission meeting.

## PSCC Newsletter

## PSCC Members

### Chairman

Kim Lee  
Homeland Security

### Vice-Chairman

Bill Westerfield  
State Parks and Cultural Resources

### Secretary

Dave Johnson  
Municipal Government

Lanny Applegate  
State Fire Marshal

Lauri Wempen  
Emergency Medical Services

Bob Dean  
Dept. of Health

Kebin Haller  
DCI

Mark Harshman  
Fire Chief's

Billy Janes  
Police Chief's

Mark Joiner  
Federal

Leland Christensen  
County Government

Steve DeCecco  
Game and Fish

Danny Glick  
Sheriff's

Vernon Hill  
Tribal

Col. Sam Powell  
Wyoming Department of Transportation

Jimmy Siler  
Livestock Board

Bob Wyatt  
Public at Large

### Executive Director

John Hartwig

### Staff Support

Bob Symons

## WyoLink Training

End user WyoLink training is now available through the Wyoming Fire Marshal's Office and the Wyoming Law Enforcement Academy. This training will be provided at the local level and includes information on WyoLink usage and interoperability. All WyoLink users are required to complete this training program. The training is being provided with grant funds from the Department of Homeland Security and Department of Commerce and there are no costs to the local agency.

Agencies can call Phil Oakes at the Wyoming Fire Marshal's Office—307-777-7288 or Russell Clark at the Wyoming Law Enforcement Academy at 307-358-3617 to schedule training .

## Fremont County

Fremont County Sheriff's Office Communications Center has recently announced our intention to move their primary radio operations over to the *WyoLink* radio system. Fremont County has invested a substantial amount of time and roughly 2.16 million dollars into upgrading our communications center, vehicle radios, and portable radios so that we would have the opportunity to move to the new trunked radio technology. The time has come, where we are ready to move forward. We would like to move our radio operations to *WyoLink* with or without the completion of the *WyoLink* site on Windy Ridge by mid to late November. This is due to the fact that our operations currently run on six different conventional repeater sites and this move would consolidate it down to two should Windy not be operational for *WyoLink* by our switchover date. This would also put all of our county law enforcement on one common "channel" or talk group and allow everyone to communicate with one another county wide, which is an impossible task with our current system. We have done extensive testing county wide and it was obvious from the onset the use of *WyoLink* is either equal to and in most cases has better coverage than our current radio system. We feel confident that it is in our best interests to make the move as fast as possible in order to have more reliable and clear radio coverage.

*Submitted by Carl Freeman, Fremont County Sheriff's Office*

## How to Join WyoLink?

The WyoLink application is available on the PSCC website: <http://psc.wyoming.gov> or on the WyoLink website: <http://wyolink.wyoming.gov>. Once the application and the Attachment A – Relationship Manager forms are completed, they are sent to the PSCC Administrative Support, address is on the application. The Interoperability Executive Committee will review the application and pass it on to the PSCC for consideration.

Upon the approval of the PSCC, a membership agreement will be developed and signed by the PSCC and Member.

A Readiness Document for Joining WyoLink is available on the WyoLink and PSCC websites that outlines the process for migrating to WyoLink.

### PSCC Mission:

The mission of the Wyoming Public Safety Communications Commission is to develop recommendations for policy and guidelines, identify technology and standards, and coordinate intergovernmental resources to facilitate statewide interoperability with emphasis on public safety.