

**There are times when you really need a radio that works.....**



**When things suddenly turn ugly!**



**ALL Domestic calls!**

**We can help you be sure that your radios DO work!**

**FalconDirect**

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**So, this narrow band thing didn't work out too good for you huh?**

So now you are narrow banded, and you may be starting to see the problems that we foretold, going back to the year 2000.

Actually, we started earlier than 2000, but we started getting serious when the FCC initiated the mandatory requirement for all radios built after December 31, 1999 to be capable of operating at 12.5 kHz (commonly known as "narrow band") versus traditional 25 kHz channel spacing, known as wide band.

Without getting technical, the effect of this change to analog radios was a reduction in audio and an increase in noise. The result was a typical range reduction of around 15%.

In some cases (small municipalities for example) the impact was minimal. For public safety, the most common complaint was reduced range and audio for portables, which has proven to be a life threatening situation in many instances.

You can go to <http://falconinfo.blogspot.com> and type the words *narrow band* in the Search box above the date for more information, but that won't solve the problem. To resolve the problem, there are seven basic choices.....



**Seven ways to address the "Narrow Band Problem"**

### **1 - Go with More Power**

This helps dealers sell more base/repeater and mobile radios. Unfortunately, there are no portables available with power higher than 6 watts (most are 4 to 5 watts)

### **2 - Go with More Repeaters**

A popular, but expensive, alternative since a new repeater with antenna and installation on an existing tower can easily cost fifteen thousand dollars or more plus maintenance.

### **3 - Go with Mobile Extenders**

If your need is primarily to extend talk-back range from portables, adding a wireless speaker-microphone system may be a good alternative. With a range of around 300 feet from the vehicle and a cost of around \$500, this could be used in lieu of a portable.

### **4 - Go with Mobile Repeaters**

A mobile repeater gives your existing portables range equal to a mobile at distances of up to 2 miles away from the associated mobile. Price is less than \$1000.

### **5 - Go Digital**

Digital radios are not affected by narrow banding. We will discuss this option in more detail later.

## 6 - Go Public Network

Some users have chosen to use a public network (SouthernLINC or Sprint) rather than a private 2-way network. Economically, this appears to be a viable alternative. Operationally, there are some concerns.

## 7 - Go Without

An obvious option is to do nothing and wait for grant money or some other miracle. In the meantime, lives could be in jeopardy.

There are other issues associated with the "Narrow Band Problem" that should be considered in developing solutions. Mainly, these issues include funding, interoperability and operating costs. Let's take a quick look at these issues.

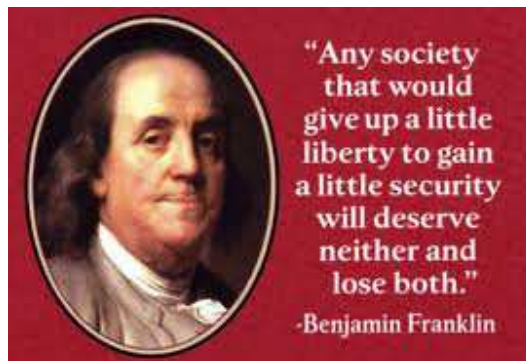


Ben Franklin is credited with the idea of making all decisions based on the idea of making a journal and listing all the positive effects for making a choice on the left side and the negative on the right.

We agree, with the understanding that there is no totally right answer for every situation, but the best answer can evolve from a careful evaluation of all the options.

For example, we believe that Options 1, 6, and 7 should be immediately disqualified as being unacceptable for any mission critical communications system. So, let's focus on the remaining four options.

## Old Ben once said.....



And on the subject of guaranteeing officer safety, there is no higher priority. If it is given that you have poor communications in some areas, there is an immediate need to correct the situation. The trick is to do it effectively.

That is why we discounted Option #1. Improving base/repeater, or mobile radio power does NOT put the help where it's needed, in the hands of the officer when OUTSIDE the vehicle.

As far as Option 6 is concerned, every single agency we know of that has tried using public system Push-To-Talk services for patrol activities has taken them out. The reason is simple - you lose the one-to-many communications capability that is an absolute essential for law enforcement.

We also don't think much of Option 7. Ignoring the problem doesn't make it go away. There IS a way to give your officers the safety they need and the administrative control you need for maximum efficiency.

We can help you choose the right solution and fund it with money you may already have. Let's look at working together!

## Adding repeaters.....

can be an efficient and affordable solution to regaining lost range. Those who think that repeaters cost \$15,000 and up will be pleasantly surprised to learn that we can add or replace a repeater for less than you may be currently paying for maintenance! See [www.info4u.us/nbs](http://www.info4u.us/nbs) for additional information on the new repeaters.

## Mobile Extenders.....

are ideal when only a few vehicles are involved. Instead of adding a repeater to serve only in areas where mobile work well, but portables do not, a mobile extender can be an excellent and affordable choice. With a mobile extender, an officer can be up to 300 feet away from the vehicle using a high powered Bluetooth speaker-microphone to talk through the associated mobile radio. More information at [www.info4u.us/nbs](http://www.info4u.us/nbs).

## Mobile Repeaters.....

Mobile repeaters work with your existing portable radio to extend the range of the portable to be equal to that of the mobile. Typically, the portable can be up to two miles away from the mobile. This is a great solution for use by law enforcement officers in rural areas. See [www.info4u.us/nbs](http://www.info4u.us/nbs) for more information.

## Go Digital.....

Going digital may appear to be a simple solution. Migrating to the right digital system is a far better solution. We have some more information at [www.info4u.us/nbs](http://www.info4u.us/nbs) but this is a decision that should not be made without additional discussion. We are available at your convenience, and BTW, we have some great solutions for finding money! nsb.pdf