

“Optimize Your Effectiveness”

The information I am going to share with you tonight will not be new to most of you, but it is important for all of you. So if you have heard all this before, receive it as a reminder, and if by chance you do pick up something new, that will just be all the better. The title Optimize your effectiveness, has the long title actually of 10 ways to optimize your effectiveness during a emergency, or public service event, and refers mostly to those incidents or events that will be local and most operators will be using an HT of some sort, and will be assigned to different locations. Some of this information however would apply to any incident or event, regardless of the equipment used.

1) **Make sure your radio is in top operating condition.** Small problems (such as loose antenna connections, bad microphones, intermittent operation, etc.) may be just annoying during casual operation, but WILL cause major grief under the continuous service of net/emergency operation. It is important that emergency information be relayed as clearly and accurately as possible, nothing is much more frustrating to the NCS that a station trying to relay in important information with a radio that just works half the time.

2) **Don't operate your handheld with it hanging on your belt.** Using the radio while it's strapped to your waist reduces your effective radiated power by more than 10 dB. That's a 90% reduction in power. Hold the radio in your hand, with the antenna in the clear and keep the antenna vertical.

3) **Regarding antennas,** those little rubber ducky dummy loads may be cute, but you're throwing away 3-6 dB of power when using one. (If you're *really* into math, compute the loss of the rubber ducky dummy load used on a belt clip). A half-wave optional antenna has a gain of as much as 10 dB over a rubber duck and a quarter-wave provides a 4-6 dB improvement. Even a 12-15" rubber duck will boost your signal by 3-6 dB over the factory ones. Remember that one dB can mean the difference in whether or not a critical message gets through.

4) **Have charged batteries and spare battery packs!** If you also have a dry cell battery case, fill it with alkaline batteries. Make sure you have enough batteries with you to carry you through, even on high power. Most people listen on the HT much more than they talk and have the misconception that a good charged NI-CAD or Nickel Metal Hydride, will last them all day. The truth is, with most rechargeable battery packs, if they are in top shape, will last for 2 or 3 hours of emergency use, and not that long if it is continuous use. There are many ways to charge batteries and provide alternate backup power to your HT, research the subject before you find yourself in an emergency or public service event with a dead battery.

5) **Use headphones or an earphone** rather than a speaker/mike. Most earphones will plug directly into your HT. Low cost stereo headphones are widely available and will work perfectly with your HT using a mono to stereo adapter. The headphones also have the advantage of concentrating the communications in your ears, while partially shutting out the outside noise. Headphones will also prolong battery life by allowing the radio to operate at lower audio output, or I might say at a lower volume level. A speaker/mike is the worst thing you can use --- it doesn't cut the outside noise, it doesn't save batteries, and where is that HT while you're using the speaker/mike? It is probably strapped to your waist, with the belt-clip, taking full advantage of the 90% reduction in power caused by that set-up as described earlier.

6) **Speak slowly and clearly** when transmitting! You make take pride in your ability to run your words together and mumble, but the station on the other end may be in a noisy environment and may not receive your message or even worst, they may copy it incorrectly. People are notorious for talking to loud and way to fast when they are exited. Just slow down, take a deep breath, and think for a second about what words will convey the message accurately. Then speak at a normal tone, clearly and at a speed the receiving station can write the information down which will almost always be necessary in an emergency. If you have to repeat the message other than to verify, then it took more time than doing it right the first time.

7) **Check out your ability to use simplex.** Even if the operation is being conducted on a repeater, there may be "dead spots," the repeater may go down, which can often be the case if the incident is weather related, Even if you can only work the two or three stations closest to you, a message can still be relayed to Net Control. To maximize your simplex range, remember that the antenna on your HT and its location will have a great impact on its range.

8) **Listen to net control** and direct all communications through him/her or relays as necessary. Identify your station when calling net control and keep all communications direct and to the point. Remember to use as few words as possible to accurately convey the message.

9) **If you must leave the radio** or the area to which you have been assigned, first seek permission and acknowledgement from the net control station, unless you are in immediate personal danger. If you are in immediate danger, then move first and contact Net Control as soon as you are safe to do so. If you must simply take time off for a few minutes, then seek permission from Net control, and make your "time off" as short as possible, and check back in with the NCS immediately upon your return.

10) **Project a good image** to all those around you, but especially the non-hams around you that are part of the event or emergency. This means acting professionally, getting along with each other, using basic hygiene skills, and not griping about how the event is going or explaining how much better it would be if you where in charge.