

How many times have you heard that cellular phones will render the Amateur Radio Emergency Service (ARES) obsolete? I've been hearing it quite a bit lately. Cellular technology advocates have been touting the increasing availability, reliability, and ease of use of their product.

Some cellular companies have been donating their phones to organizations like the Multiple Sclerosis Society to help run walkathons and bikeathons. If you listen to what the cell phone advocates are saying, you might be tempted to trade in your Handi-Talkie for one of their costly gizmos.

Don't Do it! In my humble opinion, cellular phones will NEVER replace the capabilities of radio. Most people think the only drawbacks to cell phones are fragile repeaters and short battery life. If that were so, a few engineering changes would remedy those problems and ARES would be out of business.

Don't believe it! I am convinced that an honest evaluation of the technology will show that it is inferior to radio even if you assume that cellular repeaters never go down and cell batteries never run dry.

They are easy to use, but...

Cell phones are intuitively appealing to many people involved with communications problems in the field. They feel that they could take a stranger off the street, give them a cell phone, and be 99% sure they will know how to use it.

Using a cell phone requires no special license and no special qualifications. All you

have to do to contact someone is to dial a number and wait for them to answer...

...And therein lies the first big problem with cell phones. Before you can contact someone, you need to know what their telephone number is. This sounds like an easy problem to solve, but in reality it is not easy to solve at all.

Running an event with more than a small handful of cell phones requires the equivalent of a telephone directory. Even if such a directory can be drawn up ahead of time, event organizers who do so should pray that no cell phone breaks down. If one does and the phone's user gets a substitute, all of the directories in the field will need to be updated. Doing so will require a call to each person holding a directory, and that may take a long time to accomplish.

This scenario brings up another point. Updating a telephone directory is an example of getting a single piece of information into the hands of multiple event participants. In radio, we have an easy way to do this -- we just issue a general QST (announcement) and the problem is solved. With cell phones, separate calls to each participant are required to accomplish the same task. With a large event, this could be an onerous and time-consuming chore.

A cell phone advocate might claim that no directory would be needed if each event participant could dial 'information'. Give out a single 'directory assistance' number, and everyone could contact everyone no matter what changes took place.

This is all well and good, but it also points to the second big problem with cell phones. I would hate to have to call for directory assistance in such a situation because everyone else in the event would be doing it too! All I would get would be a **BUSY SIGNAL!**

Any central point in a cell phone network is subject to being 'Busy' and thus unavailable when needed. As a matter of fact, if I were playing an important role in an event and lots of information had to flow through me, it is likely that my phone would be busy most of the time and I would be unavailable to help anyone!

It is also possible for my phone to appear 'busy' when I am not talking to anyone. This happens when I wander out of a clear coverage area into a cell phone 'dead' spot. In such a spot my phone would not ring if someone tried to call me. I wouldn't know I was in a shadowed area unless I tried to make a call myself.

They could work, if...

At this point in my article, I can hear the cellular folks fuming. I'm not being fair, they'll say. The problems I've mentioned already have a solution. It is possible to do away with telephone directories, busy signals, and redundant calls. All you have to do is set up a **CONFERENCE CALL** between the participants.

A conference call is an old concept. Participants call a central number and are connected together so they can all speak to and hear each other. No one needs to

remember any numbers because only one call is needed. There are no redundant calls because no one ever hangs up. Anyone can talk to anyone else whenever they need to, just by speaking up.

I would argue that there are a few adjustments that would need to be made before such a scheme would work. First, participating in such a call would mean keeping an ear glued to the phone all of the time, so a busy event organizer would probably delegate that task to an assistant. Second, there would have to be 'rules of the road' to make sure that people could speak in turn but could let others interrupt when something more important needed to be dealt with. Finally, someone would have to be designated as a 'traffic cop' to enforce the rules of the road. Given those adjustments, I'm sure that the conference call scheme would work just fine!

Why am I so sure? Because such a 'conference call' is exactly what a radio net is! The 'traffic cop' I mentioned is the Net Control station! The 'assistants' are Shadows! The 'rules of the road' are the same Directed Net rules we practice every week! When cell phone advocates start talking about conference calls, they are definitely speaking our language!

Cell phones will never replace radio in an emergency context because to do so they will have to BECOME radio. Cell phones work best when occasional one-to-one communication is needed. Events need the continuous many-to-many communication capabilities that radio provides with ease.

The best that cellular technology can do is mimic a radio net via the 'conference call' trick, and even then radio wins hands down when you consider the COST of such a conference call.

### **The Verdict**

As far as I am concerned, there is no doubt about it. ARES has nothing to fear from cellular phone technology. Radio is the superior tool to use when dealing with an event, be it an earthquake or an Earth Day parade.

There is one thing we should remember, though. Radio is better, but it doesn't necessarily have to be AMATEUR radio. Two meters is better than cellular, but so are CB, GMRS, CAP radio, and all of the other services.

If we want to continue to be the service of choice when it comes to auxiliary communications, we have to bring more to the table than just convenient frequencies. We have to make sure we can field 'traffic cops' and 'assistants' for events, people who know an effective set of 'rules of the road.' In short, we need to train our people so that we can create effective and efficient nets whenever and wherever they are needed. If we can do that, there is no reason to believe that ANYTHING will make ARES obsolete.

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# Why Cellular Phones will never replace Amateur Radio in an Emergency

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