QSL – QSL

In amateur radio communications the acronym QSL has a very specific meaning. A Q code message can stand for a statement or a question. Q codes are three letter groups with each group of letters having a specific meaning. Each group o letters begins with a Q. In this particular case, QSL means either "do you confirm receipt of my transmission" or "I confirm receipt of your transmission". The way that amateurs keep track of QSL communications is through an exchange of post cards between parties. I learned about the QSL card about fifty plus years ago because a friend of mine was a Ham radio operator. His name was David Long and he and his father ran a Ham radio station out of their back bedroom.

Sending out a QSL message to other parties was not only a written confirmation of the transmission but a sort of ritual of collecting the experience.

As a matter of fact, many Ham radio operators are collectors of these written confirmation cards. Not only is it evidence that there have been communications between two amateur radio stations or a one way reception of a signal from an AM radio, FM radio, television or short way station, but it can have other implications. For example my buddy had a QSL from none other than Barry Goldwater, candidate for President of the United States.

The concept to sending a post card to verify reception of station communications like this has probably been around since the invention of the radio itself. You might be asking yourself what does this have to do with the fire service? The answer is found in the fact that more and more it is becoming critical for the fire department to have the ability to be able to communicate directly with the public that it serves in order to respond in an appropriate fashion to any number of disaster scenarios. We in the fire service tend to think of this as a fire scenario, but there are many more disasters during which public response is necessary.

One does not have to wait very long to see some form of disaster that can have an adverse effect on large numbers of people. Whether it is from a fire, a flood, a volcanic eruption, an earthquake or any of the other natural hazards that have begun to plague society, the idea of being able to communicate effectively with John Q citizen is rapidly becoming a high priority for the fire service. What about large traffic infrastructure failures? What about mass inoculations or hospital surge scenarios. Are we ready to tell the populace what they could or should be doing?

Now, when it comes to our internal radio communications, we have done a really good job of attempting to make sure that the fire service can talk to law enforcement and law enforcement can talk to public works. That is the nature of this whole subject of interoperability. But, where is our channel of communications with the public?

If you are like most fire departments I would suspect that you are relying on emergency broadcasting systems to attempt to put information out whenever a catastrophic event occurs. That mechanism was primarily designed to be used in conjunction with the old civil defense system, which is an old fashion phrase for what we used to call homeland security before we had to be concerned about terrorism.

As we look at the headlines on fire and emergency events today, more and more it seems like we are being called upon to evacuate or shelter large numbers of people. There are certain sets of circumstances where we don't want people to evacuate and we would like them to stay put. The question is, how do they know the difference? And, how much time do we have to give them the benefit of our information so they can make a meaningful decision.

One solution to this has been the creation of an entirely new approach of reaching the public with health and safety information in a crisis. The system is called Radio Stat Portable Emergency Advisory Radio Stations. The radio stat portable emergency advisory radio station is a system designed to be used in conjunction with portable road signs and instruct the motorist to tune to a special AM frequency when there is critical information. In short, it is a miniature radio station that can be placed in strategic locations and be able to advise the public on very specific behaviors.

On average, each of these stations can cover about 25 – 75 square miles and they can be quickly moved from one position to another in an emergency.

An example of this has actually been tested in Ventura County, which is North West of the greater Los Angeles area that covers nearly 2,000 square miles of land. It is a complex urban and rural area that is crisscrossed by several major highways and has close to one million people residing there. Approximately one third of them are Spanish speaking.

Ventura County contacted an organization called Information Station Specialists (ISS) to design a portable, lightweight "emergency radio station". The purpose was to be able to go into a disaster situation and to be able to inform people not only in their homes but in their automobiles with critical information. This licensed radio station could be used for both natural and manmade disasters, is mobile and means that it can be moved around from location to location to deal with a wide variety of emergency scenarios.

In July of 2008, ISS partnered with Ventura County to test the radio stat system and a first responder medical-surge training exercise that was going to be held in Camario California. The exercise which was called "operation sunrise" was combined into a training event for the public safety agencies as well as the volunteer citizens emergency response teams (CERTS).

Then they were given an opportunity to test the system for real. According to Steve Johnston here is how it went.

"During the first couple of days of the swine flu event, we were receiving requests from physicians to test patients. We were concerned about bringing these people into our building, where the lab is, to conduct the specimen collection. With a concern for social distancing (and to keep our potential cases from infecting others) we decided to have them drive into our parking lot. Then specimens were taken from them while they were in their cars. To facilitate the process we deployed our RadioSTAT AM radio station along with the information signs. When these people drove into our lot, they were instructed to tune their car radios to 850 am, where they received all the information on the process and how they were to interact with our staff. This eliminated someone talking to each driver and exposing him/herself to a potential swine flu virus."

There is an organization called the American Association of Information Radio Operators that is an advocate of this concept. They can be located on the web at http://www.aairo.org. Their motto is "broadcasting direct to inform and protect." Among their most recent publications is a paper entitled" The Power of 10 Watts to Protect Millions."

For additional information on this concept you can also go to www.theradiosource.com. The technology is described on that website. Moreover, a more elaborate explanation of the Ventura County exercise is contained on that website.

The advantage of this technology is that during public health and public safety emergencies a portable emergency advisory radio station can be taken into critical areas. Moreover, those who are responsible for managing the emergency can speak directly to the citizens via standard radio receivers. These systems are licensed and are legal. They can also be used for broadcasting a set of messages from a pre-recorded library. As situations change, new messages can be recorded on the spot and provided to the recipients.

This technology is an FCC-Licensed Service. And, with the right kind of deployment plan it can cover a relatively large area with only one or two units.

It has been suggested that this kind of technology is also an excellent choice for multiple organizations that are choosing to work together with specific issues. A classic example of that would be a countywide approach to dealing with tsunami warnings on the west coast, hurricane warnings on the east coast and/or wildland evacuations or hazardous materials incidents throughout the United States.
Let's review for just a moment the requirements that need to be met when trying to coordinate an evacuation. Evacuations involve a series of organizational and business or individual family decisions that have to be based upon facts. These decisions are almost all driven by the scenario occurring at the

time and do not fit into a convenient set of criterion that can be generalized. However, most potential evacuations create a set of common decision factors. These are:

1. Whether to notify the community of the threat.
2. When to issue warning advisories
3. Whether to evacuate.
4. What areas to evacuate.
5. What areas to not evacuate.
6. What channels (media) to use for communication.
7. What specific information to give to the public in the form of recommendations or instructions.
8. Overall Content of evacuation messages, and
9. When the evacuees are likely to be able to return.

At the individual business or family level the person in charge of responding to the above decisions will have to make comparable decisions. This might include:

1. Whether to prepare to evacuate.
2. Whether to stay in place.
3. When to evacuate.
4. What to take with them.
5. Who to notify that they are evacuating
6. Selection of mode of transport.
7. Selection of route of travel.
8. Selection of destination after evacuating, and
9. When to be prepared to return.

During non emergency times these portable radios could be used to put out broadcasts on an ongoing basis to increase the preparation for citizens. Then if an event occurs it could be used to provide specific information to those engaged in the withdrawal.

This type of resource could also be used to promote fire prevention messages in fire season, climatic messages and other things during inclement weather. This type of concept is especially useful in a rapidly changing environment. The current method of working through reporters to have to go to an emergency alerting system has worked fairly well but it lacks one of the most critical aspects of good emergency communications: Real time application.
In the first place it takes a little longer than we would anticipate. In the second place it depends on somebody else to transfer the information in between. The combination of these two events mean that emergency broadcast systems are great for very long term activities but may not be as useful as a portable communication can be on a short term basis.

For years now the fire service has recognized the need to have a better channel of communication between police and fire. Moreover, we have spent a lot of time trying to make sure that all agencies have the capability of being interoperable. One might consider the development of this new concept of being the third leg of communications. The stronger we are as public safety agencies in monitoring and controlling events at the time of an emergency, the better off we are going to be. If we add the public as the third leg on this tripod there is a high degree of possibility that we may significantly improve on the manner in which the public responds to major disasters also.

There is even a national organization that is looking for partnerships in this arena. They are called the National Voluntary Organizations Active in Disaster or NVOAD. This group is a nonprofit membership organization founded in 1970 in response to Hurricane Camille in the Gulf Coast. Members of National VOAD include national nonprofit organizations whose mission includes programs either in disaster preparedness, response and/or recovery.

Since its founding, state and local equivalents of VOAD have emerged to foster cooperation, communication, coordination, and collaboration at the state and local level--the heart of any disaster response. Reportedly they have chapters in 55 state and territorial areas. If this process is going to continue to evolve there needs to be a role for the fire services to play in its development. To ignore the existence of the concept is to be bypassed by the adaptation of it into the main stream of society.

I remember as a young child sitting on the back porch of my grandparent's home listening to baseball games being broadcast on radio. On many a summer night I sat listening to the theme song of the Lone Ranger and the Green Hornet as stories were woven in my mind by the magic of radio. Today, we are taking for granted the fact that people watch their televisions and/or are tuned into the internet to do the same thing. What we need is a better channel of communications that goes directly to our potential users and that is what this technology offers.

It is up to the fire service to engage in this process. There is no national thrust to make this move at this point in time but it is definitely a possibility. For less than $15,000 your fire department could have the capability of building the final bridge in interoperability. And that is between the fire service and the public we serve. The only question that I have on my mind is whether we want to play the Star Spangled Banner when we do the sign off on the radio station such as they always did in the good old days.

One of the other codes that I learned from my buddy regarding messages was the old standby; CQ. CQ was a question "Calling any station." It was used when the air space was really quiet and my friend was just out there trying to find out if anyone is listening. The next time we have a disaster that requires consideration of the safety of our citizens from either an evacuation or a shelter in place scenario hopefully we won't be talking to dead air.