



## Emergency Measures Radio Group

### Ottawa ARES

Two Names - One Group - One Purpose



### **GENERAL MEETING**

Date: Saturday May 27, 2006  
Time: 9:00 AM – 12:00 PM  
Location: Ottawa Fire Training Centre  
898 Industrial Avenue  
(Behind the fire station)

COFFEE: Of course

Agenda:

This meeting is being planned and presented by the EMRG management team

- Introductions, brief updates
- Things to do, things to learn and things to see
- Group Pizza purchase for lunch for anyone interested (appx \$6.00 each)

Thanks to the EMRG management team for planning this meeting.

**Everyone Welcome – Please pass the message on to other amateurs!**

### **TEAM LEADER'S MESSAGE**

Life is full of changes and for me, my current contract is taking most of my time, so it is difficult to spend a lot of time on EMRG. This is one of the reasons it is so important to have other people involved in running the group. There are still a few items for which I am the bottleneck in getting projects moving, so I need to make time to get those things moving again.

One of the objectives this year is to add a couple more people to the Management team. This is important so we have a broad range of input into planning and decisions for EMRG, as well as helping to distribute the workload.

While I really enjoy working with the current management team, we will each want to move on to other things at some point, and to be a healthy organization, we need to keep changing faces at the top. Tom Zinck is one of those new faces, and I would like to welcome him in his new role as EMRG Training Coordinator.

There are other ways to help as well, that don't require meetings. Gord Phillips has taken on the EMRG web page. This is a win-win situation. Gord can work at his pace, while EMRG is getting far more effort into the web site than I provided when it was one of many things I was doing.

Creating a group like EMRG is quite easy, as the EMRG regulars know, I have done it several times in the past 10 years. Making the group grow into a well trained, effective communications solution takes a LOT of work and it will only be successful if there are many people involved.

There are many ways to get involved in EMRG, the only requirement is that you provided dedication to what you do. You don't have to on the management team and you don't have to be at every meeting, but you have to be willing to work.

Peter Gamble – VE3BQP  
Team Leader - EMRG  
EC - Ottawa ARES

## **WHAT TO EXPECT WHEN YOU GET THERE..**

So. Something went way wrong, the s\*\*t is all over the fan, and you got called out to operate with EMRG for the city. You pack up your stuff and head out.

On arrival you find you can't get your vehicle within 100 metres of the building, which is a four floor concrete box with portholes for windows.

It could be worse, you could have been sent out on the first bus load of evacuees. At least you got to load your own car.

Your assigned operating spot is on the second floor near a window that doesn't open, and looks out into a courtyard you can't access anyway. It is another 100 metres away from the door to the outside.

Fortunately, there is a ramp from one floor to the next. This is fortunate because the elevators are out. So is the power. They say it should be back on "soon".

The ambient noise is about what you would expect for a big concrete room with 200 people in it. They assigned the radio to the smallest, and presumably the quietest of the rooms they have opened.

The only furniture in the room consists of about 75 cots, which are being set up at the same time you are trying to put your station on the air. You just know the manager wants you to get on the air as soon as possible to follow up on power, cots, food and maybe some sort of situation report about the rest of the situation.

**It's fleamarket season, so now is a good time to make a list of some items you would like to add to your emergency preparedness kit.**

How do you get your stuff from the car to the operating spot?

What happens when you turn around for a second trip?

- Does the gear make it in one trip, or does it start to disappear from the spot where you place the items you carry in first?
- Does the noise, lack of power, lack of a good antenna location, or security for your "stuff" present any problem?
- Do you have enough information to find the person you are supposed to be working for?
- Can you set up without furniture? Can you operate once the sun goes down?
- Can you continue once people start to sleep?
- What else can go wrong? Can you cope?

You, of course anticipated all of this, and have battery, coax, headphones, an two wheeled cart, folding chairs and a card table with you, but what else is going to go wrong? What will you be "glad you thought to bring along" the next time you are called out.

The bottom line is ..

- Expect that your operating conditions will be worse than you expect.
- Anticipation is the only way to keep up with the game.

-Mike Kelly VE3FFK

## **RECOGNITION WILL COME IF WE ARE SUCCESSFUL**

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As EMRG team Leader, I belong to the Provincial ARES email list, the National RAC ARES list, as well as a couple other related lists such as Winlink and US ARES.

There is a common theme that has repeated itself for several years on all the lists, and I hear it from local Amateurs as well;

1. Emergency Management officials don't like Amateurs.
2. Amateurs don't get the recognition for the work done in Emergencies.
3. The most important band or mode for emergency communications is; AM, CW, HF, VHF, UHF, analog, digital, Winlink, packet, Pactor, APRS, IRLP, Echolink...
4. The role of Amateurs in an emergency is to; provide communications for Police, support forest fire fighting, search and rescue, emergency management, support Federal Government, Red Cross...

If Amateur radio was a company, we would be out of business, unless we asked questions about "why people don't like our services?"

- Does it cost too much? Amateur radio is free, so you can't get cheaper than that.
- Is there a requirement for the service we provide? We think communications is useful in an emergency and there appears to be others who support this.
- Are we approaching the right market? Depending on who you talk to, the role of Amateur radio varies.
  - Maybe we need to focus our efforts on a few areas.
  - Maybe Emergency Management, Police and Fire don't require our services.

- What other groups are involved in emergencies and disasters?
- Are we delivering solutions that meet users needs? Do we provide what we have or what is required?

After thinking about this for years, many discussions and reading the reports from Hurricane Katrina, I offer the following thoughts.

Amateur radio is useful in an emergency and does provide value, BUT Amateur radio emergency operations are currently very inefficient, so the results not highly visible, meaning not a lot of recognition.

In order for Amateur radio to be a successful and recognized provider of emergency communications, we need to be deliver effective emergency communications solutions to someone who needs them.

To be highly effective, 3 things are required;

1. We must operate as a Team
2. We must have solutions that provide the type communications our partners need
3. We need one or more Partners to support

Amateurs are civilian volunteers. We need to focus on providing communications for other civilian volunteer organizations.

## **EMRG WEB SITE**

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The transition has happened and EMRG now has a great new look for the web site. Gord Phillips has taken on the task of updating the web site based on where we are and where we are going with EMRG. Changing the look of the web site was only part of the work, Gord spent a great deal of time cleaning up existing web pages and the files they link to. Take a look <http://www.emrg.ca>. Thanks Gord, you've done a great job.

## **COMMUNICATIONS SOLUTIONS**

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Deploying successful emergency communications should follow the same structure as emergency/disaster response.

Responsibility starts at the local Municipal level and it is at this level that most of the response and work effort will be managed.

The first step is to be able to assess the situation. Before calling for help, the Municipality needs to know if they need help, and if so, what type and how much.

Local commercial communications such as phones and cell phones are the most likely to be impacted in an emergency and are the main communications solution for groups such as Red Cross and shelter management.

**Local communications should be the priority for Amateur radio because there is a high likelihood of being required, Amateur radio can provide very effective solutions using local repeaters, simplex, or a small portable repeater, and local communications typically is the last to be restored.**

Information from local areas typically must be shared across a larger area such as a County or City. In Ottawa for example, the coordination of emergency response is done in the City core, so if the emergency is in the East or West end, that local information must be transferred to the City core. Fixed repeaters are required for this communications.

Having more than one wide area repeater provides backup if one fails, and allows more than one communications net to operate at the same time. Having repeaters on different bands allows two operators at a site to communicate on different nets, without causing interference to each other.

Repeaters need to cover the area required and need to be able to operate when AC power fails.

Simplex and HF are typically not useful for Regional communications, although HF NVIS has a lot of potential. Additional solutions such as portable repeater linking could be used to link portable repeaters together to provide communications over a greater distance. The repeater linking equipment is a dedicated repeater placed between two other repeaters for the purpose of linking the two end repeaters together. This is an example of a team infrastructure requirement.

Finally there is the long distance communications. This is the least likely communications to fail and the most likely to be replaced by commercial service providers. At one time this was the main focus for Amateur radio, but over the last 20 years the requirement for Amateur radio long range communications has diminished.

Information or requests for assistance that cannot be fulfilled locally must be sent to the next nearest area or agency that can help. The objective should be to communicate with the nearest station that can access a phone and email. The message does not need to use Amateur radio all the way to the other end. There is no need to relay messages through multiple HF operators to get a message to Toronto.

## **PIZZA**

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For the May 27 meeting we are trying something new after the meeting. We will be doing a group pizza order for anyone interested in staying around after the meeting, so people can have a chance to eat lunch and chat. During the meeting, we will collect the orders, determine the types of pizza and place the order for noon time arrival. Everyone pays a flat fee, probably \$6, for their food and drink.

## **KATRINA –There Were Many Communications Solutions**

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(Press Release during Katrina Relief efforts)

Telex/Vega Equipment Chosen By the Red Cross to Link Relief Centers in the Wake of Hurricane Katrina

Telex's IP-based equipment will link to satellite technology to provide 3-state radio communications network.

Minneapolis, MN - Telex Communications has shipped over \$65,000 worth of equipment directly to the Red Cross for use in the relief efforts in the aftermath of hurricane Katrina.

Communications between Red Cross aid stations and back to their national headquarters continues to be an enormous challenge as they face an ongoing, long term aid situation in Louisiana, Mississippi, and Alabama. Permanent communications infrastructure has been completely destroyed in the affected areas and will take months to get back in place. In light of this the American Red Cross chose Telex/Vega IP-223 Dual IP-Adaptor Panels and C-Soft Software Based Dispatch Consoles to create a flexible, reliable emergency communications system. High power, low-band VHF radios, located at tower sites across the affected area have been bridged onto an IP-based network using the Telex/Vega IP-223, which is then connected directly to satellite uplink devices. The satellite broadcasts are then being transmitted to 3 regional emergency dispatch centers, where they are monitored and controlled using C-soft. The solution allows all relief centers to communicate with central dispatch, and with each other, using simple portable two-way radios. This innovative solution has been quick to deploy and provides immediate communications continuity in areas where the infrastructure has been completely whipped out.

Telex has also donated the use of two of its VIPER MCU, Portable Command Systems to the relief effort. The MCUs have been deployed at remote Red Cross communications locations and will provide completely self-contained communications platforms, also capable of interfacing directly with the satellite based system.

## **EMRG TRAINING**

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Training has been taking place in an adhoc fashion, and while there is some strategy to it, EMRG lacks an overall training plan.

Tom Zinck, (VA3NFA) is now responsible for Training coordination. Tom's role will be to pull together the training currently delivered by EMRG, look at what other groups are doing, and collect input from the Management team on EMRG priorities. From this, Tom can create a plan for development and delivery of training in EMRG. Thanks Tom for stepping up to take on this role!

## **EMRG STRATEGY**

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While EMRG works with many groups within the City of Ottawa, the focus of EMRG activity will be groups who provide humanitarian relief services such as food and shelters. The two main partners in this area are The City of Ottawa Department of Community Services and the Ottawa Red Cross. We know these groups rely on phone and cell phones and they don't have an alternate communications solution.

EMRG Training, Exercises and Projects will be integrated to help EMRG deliver an effective communications team, with effective communications solutions. This includes the ability to provide communications from shelters, using portable equipment, allowing the equipment to go anywhere in the City of Ottawa, or to help in other areas outside the City.

## **BEING A TEAM**

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For many amateurs, providing emergency communications means building up a personal arsenal of what they think is useful in an emergency. Each Amateur is an independent operator, a self contained army of 1.

Once people deploy, the limitations of the 1 person army begin to show up. The first recognition is that communications takes at least 2 people, one at each end. No matter how much power you use, if the person you need to communicate with is using a different band or different mode, then you will not be able to communicate.

If you ask "What is the most important band and mode for emergency communications?", you will see that within Amateur radio there are a lot of different opinions. Part of the role of an organized team is to decide in advance how to communicate.

Strength comes in being a team, not a group of individuals. Applying the idea of operating as individual to hockey, each person would show up prepared to play the position they thought was most important. You may have multiple goalies or no goalie, you might have everyone moving forward trying to get a goal, or everyone staying back to defend their end. To be an effective team, there are team positions that must be filled, even if the person filling that position is not the best. Having someone in the net is better than no one.

Amateur radio is currently recognized for its efforts to provide communications in an emergency. By moving to a team approach, the effectiveness of the communications Amateurs provide can be greatly improved. This improved effectiveness will be noticed and will receive recognition for its value.

## **MORE THAN TEAMWORK IN A TEAM**

Being a TEAM means more than being able to work together. Developing effective solutions requires more effort, skills and money than the average individual can provide.

Fixed and portable repeaters need to meet the requirements of emergency communications, not what was convenient to build. Having everyone cobble together something in their backyard is not reliable and not very effective.

Some equipment must be deployed for the duration of the event. Many people bring lots of equipment with them, but they take it with them when they leave. Supporting infrastructure must be owned, maintained and deployed as a team.

## **NOTE FROM OFS**

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After the ARES District meeting in February, I sent a note to the Deputy Chief for Ottawa Fire Service to thank him for the support we get from the Training Centre and Communications. He sent the following reply;

"Peter:

I am pleased to hear things are going well. We here at Ottawa Fire Services, are committed to working with our partners to ensure the services to the citizens of Ottawa are second to none...John Ash and his staff I am sure, also recognize the value added your organization contributes to our preparedness.

Thanks Again,

Bruce Montone

Deputy Fire Chief

Prevention, Training, Special Operations,

Safety & Communications Divisions

Ottawa Fire Services"

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## **RECONNECTING THE 21st CENTURY FAMILY**

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Back in the old days, mom was at home, dad was at work and the kids were in school or at the neighbourhood park or down the street at their friend's house. Getting the family back together after an evacuation wasn't so much of a problem.

Fast forward to the early 21st century and mom is at work, dad is at work or the gym. The kids are at day care, or at the mall or hanging out downtown.

If they are at school, they got there in a big yellow bus that spent an hour on the road. Nobody is quite sure where the ex or the step kids are. Does the big yellow bus drop them off at the edge of the yellow tape?

When the neighbourhood gets evacuated because of a transportation accident, or something similar, how does the family pull itself back together?

The teens have cell phones that may or may not work, but who do they call?

Can lower bandwidth means like text messaging be of use if the rest of the family can't muster anything better than a one minute outgoing call on a payphone. Are the phones working at all? Does the regroup plan still work if the kids are with one spouse on even weeks and with the other on odd weeks.

The current recommendation from Emergency Preparedness Canada is to have an out of province contact to collect location information. Can you get a call out to them with the payphone?

Does this system still work in a divided family?

Sorry, but all I have are questions. The answer depends on your particular situation. What plans have you made? Do you have a back up plan?

Mike Kelly VE3FFK

## **PARTNERS**

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Communications by itself is not useful in an emergency. While Amateur radio operators must work as team, Amateur radio communications must operate as part of the larger team supporting relief efforts. Without partners, Amateur radio is just a bunch of people running around with radios.

Partners coordinate the relief effort, to ensure that the most impacted get assistance first, and that everyone gets equal treatment.

If Amateurs self deploy and start independent radio operations, they can interfere with the bigger relief effort. What looks important at an individual level may not be critical in the big picture.

EMRG's main partner is the City of Ottawa, Office of Emergency Management (OEM). OEM does not use EMRG communications, they are responsible to coordinate with volunteer groups, to make sure that the services are available to the City in an emergency.

The main partnerships for EMRG are the Dept of Community Services, who manages shelters and the Red Cross. These groups do not have radio communications, so they rely on phones and cell phones. In an emergency where local communications has failed, these groups will need EMRG communications.

## **EMERGENCY PREPAREDNESS STARTS WITH YOU!**

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Make sure you have a plan to take care of your own family. The better your plan, the faster you will be able to ensure your family is OK, which means you can move on to helping others.