

# Neighbourhood Emergency Mobile Radio Protocols (NEMRP)

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## 1. Purpose of this plan/protocols:

- To establish communication during *emergencies* or *natural disasters*, between members of the community, with the purpose of coordinating help, assistance and rescue efforts. In the event that normal communication methods have broken down.
- Using affordable, easy to use and license free mobile radios.
- Keep in mind that search and rescue organizations will have their own protocols on their own, licensed radio networks. This plan is for members of the public.

## 2. When to implement this plan:

- Partial or entire area has been without power long enough for cellphone and/or data communication to have become unreliable.
- Physical threats are present, such as rioting, looting, rampant lawlessness which are threatening normal communication channels.
- Natural disasters causing, or likely to cause unreliable cellphone and/or data communication.

## 3. Who can use this plan:

- Any community members with two-way-radios that are tuned to the licence free, PMR446, Public Mobile Radio, frequencies. (Most Commercially available walkie talkies)

### Radios

Some radios are not using the PMR446 frequencies out-of-the-box, and may have to be re-programmed, a common example would be the Boafeng BF-888s. Please read up on your devices and make the necessary changes where applicable. If your devices are not making use of these channels and frequencies, it will **not** be compatible with this plan. Radios purchased from camping/outdoor outlets should all be using this system. Cheaper imported radios may need re-programming.

## 4. Channels | Descriptors | Frequencies:

PMR446 has 16 Channels, 1-8 are most common and the oldest. Thus 1-8 will be used, unless you find the channel has too much interference, then move to the corresponding

channel from 9-16. Channel 1 will correspond to Channel 9, and so forth. All Frequencies are in MHz, FM.

**Channel 6(Call) would be used first by everyone, then move over to the applicable channels according to the following basic guidelines:**

- 1 | Medical Emergencies | 446.006250/446.106250
- 2 | General Emergencies | 446.018750/446.118750
- 3 | General Chatter/Open | 446.031250/446.131250
- 4 | Food/General/Open | 446.043750/446.143750
- 5 | Water/General/Open | 446.056250/446.156250
- **6 | Call/Maintain/Organise | 446.068750/446.168750**
- 7 | NHW/EMS/Security/LawEnforcement Members | 446.081250/446.181250
- 8 | NHW/EMS/Security/LawEnf Alt | 446.093750/446.193750

**Life-Threatening/Time-Sensitive Emergencies should be called on Channel 6 first just in-case there are a limited number of people monitoring the other channels.**  
Use Channel 6 if all else fails.

## **5. How to:**

1. Use Channel 6 if it is your first time broadcasting or if you are not sure which channel to use.
2. Switch your radio to the channel, turn it on and the volume up.
3. Take a moment to listen, if there is currently someone talking on the channel, wait until they are no longer speaking. Being outside and high-up would be an advantage.
4. Press your PTT(PushToTalk) button, wait 1 second, then start speaking in a clear, normal manner, do not shout or speak fast. Hold your radio or microphone close to, but not against your mouth. Speak across the mic rather than directly into it.
5. Identify yourself, either your name or your call-sign.
6. Clearly state your emergency or inquiry, repeat it once or twice.
7. Release your PPT button and await a repsonse.
8. Should your conversation lead you to a different channel, annouce it. ("Moving to 4" as an example)

## **Radio Etiquette**

- Ending your messages with "Over", makes it clear to listeners that you are done talking, awaiting a response.
- Ending your messages with "Out", makes it clear that you are done talking and will not be requiring a response. That is, end the conversation.
- "Over and Out", should not be used, it is apparently from the movies only. Either use "Over" or "Out", or simply stop broadcasting.
- "Copy" lets other members know that you understood and heard what they said. "Do you copy?", is a way of asking members if they understood and heard what you said.

## Should you not get a response

1. Make sure your radio is turned on and volume is turned up.
2. Move to an area with better reception, such as outside, under clear skies, or to higher ground.
3. Try the alternative channel as listed above, or move to the open channels.
4. Double check that your PTT is not being pressed, your radio cannot receive a transmission while broadcasting.

**Please note that these communications are public and not private, even if your radio is using privacy tones.** Should your radio be using privacy tones, it will limit which broadcasts you can receive. We can hear you but you won't hear us kind of situation. I would recommend that we not use these tones.

## Example - Making first contact

You - "Howzit, this is 'Your Name/Call-sign'. I have broken my leg and need assistance at 'Your Location', repeat, I have broken my leg and need assistance at 'Your Location'."

Response from another member - "Copy, please stand by, we are sending help, move to channel 1 for further assistance over the radio."

You - "Copy, moving to channel 1, out."

Both yourself and the responder should continue your conversation on channel 1 and liaison with any medical volunteers there.

## 6. Scanning/Monitoring of Channels

We kindly ask that capable members of the community, NHW, Law Enforcement, Security Companies etc, monitor some of the channels and provide assistance where you can.

For those with the equipment to and who are able to enable scanning on your devices and can keep up with the power requirements of scanning all the channels, please do. Kindly direct or advise other members should you come across a broadcast that is not being responded to.

## 7. Radio Distribution

In areas with many hills and valleys, try and distribute radios no further than 600m apart. Flat areas will have much better reception, possibly over 4km even.

Members of the community who are willing, might volunteer to hold a radio at their house and help with communications. If you own more than two radios, it may be a good idea to reach out to others and ask them if they are willing to borrow one of your radios, so that the range of communication can be enlarged.

Depending on range, some members may need to act as a "repeater", re-broadcasting a message to someone further away.

Should the amount of radios and the distribution not be enough, make sure to position available radios as high as possible, and outside or at least close to the outside of a building. A radio on the ground floor will have worse reception than on the top floor as an example.

## **list of volunteers**

It would be good to create a list of volunteers, their locations and who needs to get radios from whom, before the need ever arises to implement this plan.

We would need people documented for at least these roles:

- **Controllers (Channel 6)**
  - Experienced people who can direct and take charge. Be available nearly 24/7(as a group) and have a shift system in place. These residents should also be centrally located for best radio reception.
- **Security Controllers (Channel 2)**
  - Someone who can relay relative messages relating to law enforcement or safety to Private Security companies, SAPS and to channels 7 and/or 8.
- **Security (Channels 2 and 7/8)**
  - People willing to assist with security, including trained security personnel living in the area. NHW members
- **Zone Captains (All channels)**
  - Someone like NHW Members who can monitor chatter in smaller zones of about 1 square kilometer or so. They may need to physically move around and talk to residents, then relay any concerns and needs to the radio network.
- **Medical (Channel 1)**
  - Doctors/Surgeons/Vets etc living in the area.
  - Nurses
  - Those with first aid training.
- **Chargers**
  - Residents with Solar, who would be willing to assist in keeping radios and other essential devices charged for the volunteers.

## **8. Closing remarks**

This plan serves as a guideline, and each community may find they need to adapt it and make changes as they go.

In the end, we all need to stick together during times of need. Only broadcast on your radio if it is really needed.

Cheers!