EMRG Repeater Strategy

RELIABILITY

Repeaters must be dependable

- Withstand continuous use for days in an emergency
- Generator backup, with battery backup in case of generator failure
- Quality parts and workmanship
- Regular testing and maintenance

DIVERSITY

Some repeaters may not be functional in an emergency, so sufficient capacity is required to maintain effective coverage with some infrastructure loss.

- More than one site that can cover an area
- Sites independent of other radio systems

CHANNEL CAPACITY

User requirements and message volumes will vary, so more than one repeater and coverage area is required to effectively meet user needs.

- Multiple repeaters on different bands
- Channels should meet user through put volume and speed. Some groups may need a dedicated repeater so messages never wait.

PARTNERSHIPS

Where possible, EMRG will use existing repeaters maintained by local clubs or individuals, rather than implement an EMRG owned repeater.

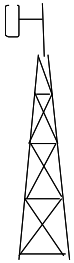
- Unfortunately existing repeaters are beginning to degrade or disappear
- Coverage of existing repeaters does not always meet EMRG requirements

Print double sided and fold in the middle so this is the back page. On printers with full duplex printing, you may need to select “Flip Pages Up” under Properties for correct orientation of second page.

Emergency Measures Radio Group (EMRG)

OTTAWA ARES

- Two Names, One Group, One Purpose -



Voice & Data Repeaters

EMRG repeaters are open for use by anyone in the Amateur community under the following understanding;

- The purpose of the repeaters is for emergency communications, so EMRG has priority for exercises and emergencies.
- Conversations should be useful, Amateur radio related and free from personal opinions. The repeaters are on City of Ottawa property and are occasionally monitored by City staff who have scanners.
- If the repeater is not working, tell someone. Notify any member of the EMRG management team, or send an email to ve3oce at rac.ca

EMRG REPEATERS

VE3OCE VHF - 146.880 (-)
- 136.5 Hz Tone In & Out
- Wide Area VHF Repeater
- Provides coverage across most of the City Extended range with cross band repeaters

VE3OCE UHF - 443.800 (+)
- 136.5 Hz Tone In & Out
- Regional UHF Repeater
- Provides coverage in Central core of the City.

VE3OCE Packet - 145.030
- Provides good coverage in the Urban areas
- Partial coverage City wide.

VA3OFS VHF - 146.670 (-)
- 136.5 Hz Tone In & Out
- South/Regional VHF Repeater
- Provides coverage in the Southern portion of the City and Central core.

VE3EMU UHF - 444.950 (+) (Under Construction)
- 136.5 Hz Tone In & Out
- Local UHF Repeater
- Provides in-building coverage in Centre Point for Ben Franklin Place, 100 Constellation and some of Algonquin College.

VA3EMV/E VHF - 146.985 (-)
- 100.0 Hz Tone In & Out
- East End Community VHF Repeater
- Provides local coverage from Blackburn Hamlet to the Eastern edge of Ottawa..

VA3EMV/W VHF - 145.210 (-)
- 123.0 Hz Tone In & Out
- West End Community VHF Repeater
- Provides local coverage for West Carleton and Stittsville.

VA3EMV/P VHF - 145.110 (-)
- 136.5 Hz Tone In & Out
- Portable VHF Repeater
- Provides coverage in local area if required.

CTCSS TONES

Some just call then Tones, Motorola called them PL (Private Line), GE called them CG (Channel Guard), some people refer to them as sub-audible and some call them CTCSS (Continuous Tone Coded Squelch System) tones. No matter what name you use, they are the same and they play an important role in EMRG repeaters.

Contrary to popular belief, the requirement of a tone to access a repeater does NOT mean it is closed. A tone is frequently used to reduce interference in high RF environments and to allow the same repeater frequencies to be re-assigned within a shorter distance.

Users with a radio capable of decoding the tone will not hear other interference on the channel that would otherwise open the squelch on the user's radio.

CTCSS TONES FOR EMERGENCY USE

There are many people who believe that a repeater should not have an input tone because there are amateurs who have radios that cannot support CTCSS tone encode. The belief is that in an emergency, these people would not be able to get into the repeater.

In reality this is not an issue for three reasons;
1. Most amateurs can encode a CTCSS tone on their radio.
2. Many people will be partnered with someone and will be using the other persons equipment.
3. Some will be at a location with a permanent radio such as the EOC, Red Cross or EMRG communications centre, plus EMRG is has a supply of radios to fill in gaps as required.

CTCSS TONES ARE USEFUL

CTCSS tones should be used on repeaters to limit interference or to allow a frequency to be re-used, such as the EMRG East and West community repeaters.