

KINGSTON AMATEUR RADIO CLUB NEWSLETTER

Founded 1947

December 2022

Executive Committee

President

Ron Walsh, VE3GO
pres@ve3kbr.com

Vice President

Tim Gregory, VA3TIC
vicepres@ve3kbr.com

Secretary/Treasurer

Greg Foster, VE3PJ
sec@ve3kbr.com
treas@ve3kbr.com

KARC Repeaters

VE3KBR 146.940(-) MHz
Tone 151.4
IRLP Node# 2750

VE3UEL, Hartington APRS Node
144.390 MHz Simplex

Committee Chair Members

VHF Net Manager
Brian Hopkins, VA3BAH
netmanager@ve3kbr.com

Membership Manager
Greg Foster, VE3PJ
sec@ve3kbr.com



President's Message

I want to thank the previous executive for hanging on through the Covid era. It sure put a damper on club activities. I am happy that Tim, Greg and I have got the chance to help out the club as much as we can.

That leads to the first order of business. Need a secretary for the KARC. Greg has filled in, but we need to lighten his load.

It is my opinion that the club needs to do things that get the group together and also further Amateur Radio. Please remember that if you suggest ideas, it is expected you will be part of the group who organizes the event. We can only do things if we have the necessary people to make the event happen. If we wish to have a breakfast, tailgate, field day, contest group etc. make a proposal at a meeting.

I would like to see more activity on our repeater. It is a great way to keep in touch with your fellow amateurs and give help when needed. When we have bad weather etc. I hope you will take time to go on the repeater to see if you can be of assistance. Many amateurs ask for information you may be able to provide. This is particularly true when power is lost.

Do we need other regular gatherings on the repeater? Discussions of particular interest might be a reason to meet. Propagation, experiments, DX, and even an unstructured rag chew could be an idea. Our weekly net is a great place to advertise what you wish to do. Please encourage all amateurs, members or not to use our net to give publicity to their radio event.

We are looking for an alternative site for meetings as Smitty's hours and days available do not really suit a meeting with a program. Robert is planning programs and if you would like to present something please let him know. VE3SDQ, needs items for a monthly newsletter. Please forward any material to him.

I look forward to seeing many members at the January 2023 meeting

Ron VE3GO / VE3IDW

OUTGOING PRESIDENTS MESSAGE



Out with the old and in with the new. 2023 is more than just a new year; it will be a year with a new club president, Ron, VE3GO, and vice president, Tim, VA3TIC; same old secretary/treasurer though, Greg, VE3PJ. But there needs to be some continuity. I've held the position since 2019 and it's time for a change. I wish the new executive all the best for the future of our club. It's not what your club can do for you; it's what you can do for your club.

There are so many different modes available in the hobby. From analog tube radios to digital modes controlled with a raspberry pi; multiple aspects of the hobby and various means of communication. This was on the internet, so it must be true: since morse code is no longer a requirement, there has been a resurgence of individuals learning it and getting their license to operate. I know it's on my list of things to do when I can manage the time to focus on it.

Time is such a precious commodity. We all have the same 168 hours in a week: 56 hours for sleeping, (plus or minus for naps); 40 for working; 21 hours for eating; 51 hours left over for miscellaneous activities. Who am I kidding, no one lives like that. However, I'm hoping to manage my time more effectively regardless. At least until the next shiny object gets my attention.

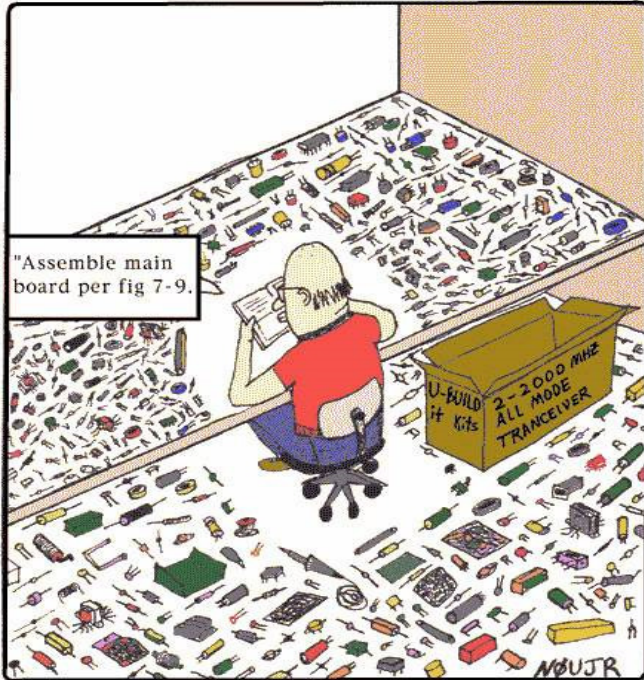
73 and all the best in the new year!

Brian, VA3BAH



HAM HUMOUR

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Kit fun.



Introduction to Station Grounding

This is a topic that we all should ensure our equipment is “grounded” There are varying degrees of grounding and the more extensive the higher performance you will see and the safer installation you will have. I came across this very simplistic article there are much more extensive ones available.

Greg

VE3PJ

Introduction

After antennas, station grounding is probably the most discussed subject in amateur radio and it is also the one replete with the most misconceptions. The first thing to know is that there are three functions served by grounding in ham shacks: 1. Electrical Safety 2. Stray RF Suppression (or simply RF Grounding) 3. Lightning Protection. Each has it's own set of requirements, but not all station setups need every kind of ground. In fact, some setups don't use a ground at all! The articles on this page will help clear up some of the myths and mystery surrounding this popular topic.

Grounding FAQ

1) How important is a ground?

- a) Most people say that grounding is all- important, but I have had a few people tell me that grounds aren't necessary.

2) Grounds fulfill three distinct functions. The best ground for one function isn't necessarily the best for another. The three are:

- a) **Safety ground.** This protects you from a shock hazard if one of the mains or high voltage power supply wires contacts the chassis due to some kind of fault. The requirements for this ground are spelled out in your state's electrical code. I believe that most states adopt the National Electrical Code (NEC). The safety ground conductor in your wall sockets should be connected to ground according to this code, and your rig's chassis should be connected to the safety ground.
- b) **Lightning ground.** The requirements for a ground for lightning protection are much more stringent than for a safety ground. The topic has been discussed in this group many times, and there are numerous resources available for learning how to make a ground system for lightning protection. (See the TIS Page on [Lightning Protection](#))
- c) **RF ground.** This is required only for certain types of antennas-- ones which require current flow to ground to complete the antenna circuit. An example is a quarter-wave vertical. One wire of the feedline connects to the base of the antenna, and the other connects to ground. The connection to ground has to have a low RF resistance, or you'll expend too much of your power heating the ground. A few radial wires will provide a moderately low loss connection. A ground rod will help a little, but the RF resistance will be high, resulting in quite a bit of loss. Chapter 8 of the ARRL Antenna Book shows the approximate trade between resistance and number of radials. If your antenna is much shorter than $\frac{1}{4}$ wavelength, you'll need many, many radials to get reasonable efficiency. If it's longer, you can get by with fewer. A $\frac{1}{2}$ wavelength base-fed vertical needs only a

very modest ground, and a ground rod is adequate. The requirements for various other end-fed antennas depend on their length. If you use a "complete" antenna like a dipole or a ground plane (that is, one that doesn't require your feedline to connect to ground), you don't need a RF ground, as long as you keep common-mode currents off your feedline. A "current" or "choke" balun is most commonly used for this.

- 3) **What are the ground/counterpoise alternatives to driving an 8-foot metal pole into the ground? I live in an apartment, and I highly doubt I can do this.**
 - a) Shallow-buried radial wires are the best. Connection to other conductors just under the surface, like a metal water pipe, is next. These are for the **RF ground** described above.
- 4) **I have heard that balanced antennas don't require grounds. How do I get a balanced antenna?**
 - a) See **RF ground**, above.
- 5) **How do mobile HF operators get RF grounds? For obvious reasons, the 8-foot buried pole won't work.**
 - a) In a typical HF setup, the car is capacitively coupled to the ground, so the antenna is something sort of like a cross between a lopsided vertical dipole (with the whip being one side and the car the other) and a vertical with elevated radial system.

Roy Lewallen, W7EL, ARRL Technical Adviser

If this has peaked your interest/concern here are a couple of good follow up articles providing significantly more detail.

1. [https://w4olb.org/files/documents/Ham%20Station%20Grounding%20\(1\).pdf](https://w4olb.org/files/documents/Ham%20Station%20Grounding%20(1).pdf)
2. <http://www.repeater-builder.com/tech-info/bonding/amateur-radio-bonding.html>



KINGSTON AMATEUR RADIO CLUB

Minutes – December 1, 2022

1. Meeting open at approximately 18:00 by Brian (VA3BAH) and each person introduced themselves, there were 11 people in attendance.
2. Treasure's Report - Greg (VE3PJ) read the November 2022 and reminded everyone the monthly reports are posted in the Members Only section of the web site.
 - a. Les (VE3KFS) Move to accept the report as read
 - b. Chip (VA3KGB) Seconded the Motion
 - c. Motion past
3. 2 Meter Net - The Net Manager Brian reported the Net is running fine and the "interference" that we had been experiencing seems to have subsided.
 - a. The recent DFing (Direction Finding) seems to have sparked an interest in a Fox Hunt. Ron (VA3GO) will follow up with Don (VE3MNE) to see if he can locate the club's fox.
4. CFARS - Les reported that there is an exercise coming up on Dec. 11 and 2 versions of software will be used, one in Canada and one south of the border. CFARS has a new manager who resides in Vancouver.
 - i. The "pole" has finally arrived at the museum, now the next challenge is to get it installed.
5. HF Remote – Chip reported the remote is still down. It requires some software re-writes and the antenna is down. Chip will work to get it back on the air.
6. Hearst and Flowers - Pieter (VE3NXE) has not been well lately including a stint in KGH. The club's prayers are with Pieter and his family for a speedy recovery

New Business

1. Ron warned everyone about scam emails he has been receiving.
2. Ron has 2 Kenwood phone patches available for free.
3. Brian reported that the open house at the Airport that he had previously mentioned is on hold indefinitely.

4. Election of Directors

Greg reported that there had been no response to his email of November 8 calling for nomination to the Directors positions. Tim (VA3TIC) stepped up and volunteered to take the Vice-President position and Ron stepped up to take the President position. Greg volunteered to remain as Secretary/Treasurer. As there was no need for an election all were acclaimed. The new slate of directors is

- a. President Ron (VE3GO)
- b. Vice-President Tim (VA3TIC)
- c. Secretary/Treasurer Greg (VE3PJ)

- d. Note: If some ones would like to take on the Secretary role, please give me a call.

Meeting Adjourned

Moved by Brian

Seconded by Tim

Robert ran through a presentation of FMT (Frequency Measuring Test) showing how he can get “really close” without expensive test gear.

Next meeting January 5, 2023 18:00 hours