

From the Gavel...



Last month, I talked about the mother of all hamfests, the Dayton Hamfest in Ohio. Stephen (VA3OBR), Bryan (VA3BLJ) and I attended the event. The show lived up

to all our expectations, but it was quite evident that the number of outside tailgaters was down from previous years. Raising gas prices may have kept the casual seller away. This wasn't the case for the commercial vendors. General attendance was about the same.

Of particular interest to me was the Contest Forum. Part of the presentation centered on Software Define Radio (SDR) and the use of Alex's VE3NEA's Skimmer software. One interesting fact that I learned about SDR is that all activity on the band can be down converted to audio frequencies, scanned and captured to a computer file. It is possible to replay any QSO on the band at a later date. The ability to listen to the whole band at once has the potential for all sorts of new amateur radio software. Alex's Skimmer program is such an example. It can scan the entire HF band and decode all CW stations that are calling CQ. It posts the captured call signs to a software band map where it can be selected to automatically tune your radio to the appropriate frequency. In essence you have a personal live DX Cluster without the use of the Internet or a TNC. The software even captures and posts the contest exchange for each station. This has the contest community up in arms as it takes all the skill out of contesting.

Closer to home, a number of us helped to take down Don Meaker's (VE3KHN) tower and antenna farm. Don has sold his home and

moved into a new condo. I would like to thank all of those who helped, with special thanks to Dan "The Tower Man" Goodier (VE3NI) and his new apprentice Michael Brickell (VE3TKI) for doing the tower work. Taking down a heavy duty 56' tower is no easy task.

This month our new treasurer Scott Gregory (VA3NMI) will be presenting the budget to the club to be voted on. It should be noted from his presentation that our expenses match our income. If it weren't for Hamex, the club would not be able to cover its' own operating costs. If Hamex is exceptionally good, we have a few extra dollars to spend on projects. Should it ever tank, we would be in trouble. Because of rising meeting hall costs (which were once free when we were at the Scout Hall), the fact that we are no longer charge for the repeater autopatch (for lack of use), combined with other miscellaneous raising costs, membership fees alone no longer cover our operating expenses. While we decided not to increase the membership fees for the upcoming year, going forward we will need to re-evaluate our fee structure so we are not so dependant on Hamex.

Don't forget the last two events for the year, the pot luck dinner on the second meeting of the month, followed by Field Day on the 28th. Please attend both. It will be fun. So have a warm and safe summer and see you in September!

73 ... Rick Brown VE3IMG

This Month

2. **Commentary**
3. **Club Calendar**
4. **2m Cubical Quad Antenna**
5. **Personal Disaster Preparedness**
8. **The Roving Reporter**
9. **RAC Application Form**

Sunday Brunch

Sunday brunches are held on the first Sunday of each month. Time is 9:30AM at Shopsy's, 6986 Financial Drive Unit 5 Mississauga (at the corner of Mississauga Rd and Derry Rd). All are welcome to come out and have an opportunity to chat in an informal setting.

Club Nets

2 Metre Tuesday Night Phone Net Join in on the chatter starting at 8:30PM every Tuesday on the club repeater. Hosted by various net controllers. 145.430MHz Tone 103.5 Minus (-) offset. Contact our VHF Net Manager, **Lorne (VE3CXT)**, if interested in becoming a net controller.

75 Metre Sunday Night Net Starts at 8:30PM every Sunday. Hosted by various net controllers. Contact our HF Net Manager, **Michael (VE3TKI)**, if interested in becoming a net controller.

Commentary



June is here, finally! And that means field day is here!! I believe this is the most important day in the ham calendar. Most likely, you do too. It was two years ago at the Field Day that I came face to face with hams and witnessed the

action. I can't tell you how amazed I was. I have been hooked ever since.

MARC was listed as the sole participant in the 11A category in 2007. This year we probably will have 12 stations and listed as 12A. This puts us in a unique position and says something about our club. We are indeed an active and progressive club as is mentioned in our HF and VHF net preambles.

We have another beautiful location for our field day this year – a conservation park with a river flowing by the site. This must be a beautiful environment to operate our radios.

Lorne VE3CXT makes sure that we have a fine dinner and an elaborate breakfast. As night fell, last year we got to watch a movie, thanks to Dave VA3DFH and I recall someone setting up a telescope too. If we are lucky these will happen again.

You, like me, must be surely excited and looking forward to the big day. See you there!

Thomas VA3TMB

PS: The Communicator will take a break for the summer. This will be the last issue for the current 2007-2008 year. So watch out for the September 2008 issue of The Communicator.

Executive Directors

President	Rick Brown, VE3IMG
1st Vice President	Asim Zaidi, VE3XAP
2nd Vice President	William Bressette, VE3WPJ
Treasurer	Scott Gregory, VA3NMI
Secretary	Dan Goodier, VE3NI
Past President	Dave Harford, VA3DFH

Club Managers

Membership Manager	Dave Harford, VA3DFH
Education Manager	Earle Laycock, VE3XEL
Basic Theory Courses	Earle Laycock, VE3XEL
Basic Theory Courses	Bob Hawkins, VE3AGC
Basic Theory Courses	Jody Levine, VE3ION
Basic Theory Courses	Don McPhee, VA3BOW
Basic Theory Courses	Basil Burgess, VE3JEB
Basic Theory Courses	Robert Dutton, VE3ZZF
CW Courses	Frank Lamb, VE3HTX
CW Courses	Earle Laycock, VE3XEL
House / Visitor Host Manager	Robert Humphreys, VE3HOW
Newsletter Editor	Thomas Bernard, VA3TMB
Researcher	Kim Cheong, VE3KTC
Net Managers HF Net	Michael Brickell, VE3TKI
VHF Net	Lorne Jackson, VE3CXT
Repeater Manager	Michael Brickell, VE3TKI
Assistant	Dave Harford, VA3DFH
Assistant	Bryan Jay, VA3BLJ
Assistant	Bob Boyer, VE3XBB
Assistant	Lorne Jackson, VE3CXT
Assistant	John Duffy, VE3DRZ
Assistant	Asim Zaidi, VE3XAP
Assistant	Tony Champion, VA3QC
Assistant	Robin Stubbs, VE3VVS
Assistant	William Bressette, VE3WPJ
Club Station Manager	Stefan Bejusca, VA3OBR
Assistant	Rick Brown, VE3IMG
Assistant	Asim Zaidi, VE3XAP
Assistant	Alex Malikov, VE3MA
Assistant	Bryan Jay, VA3BLJ
Field Day Manager	Open
Assistant – Documentation	Tony Champion, VA3QC
Assistant – Logging	Jody Levine, VE3ION
Assistant – Refreshments	John Duffy, VE3DRZ
Assistant – Site	Thomas Goodie, VE3TWG
Assistant - Press and Publications	Reg Vertolli, VA3JQA
FSV Manager	Dave Stubbs, VA3BHF
Assistant	William Bressette, VE3WPJ
Programs Manager	Ken McPherson, VE3TQT
Webmaster Manager (Source Code and DB)	Dave Harford, VA3DFH
Assistant	Dan Goodier, VE3NI
Assistant	Rick Brown, VE3IMG
Graphical Support	Alex Malikov, VE3MA
Legal Consultant	Lorne Jackson, VE3CXT
Public Information & Media Relations Manager	Tony Champion, VA3QC
Photography	Reg Vertolli, VA3JQA
Assistant	Dan Goodier, VE3NI

Audit Committee

Auditors Coordinator	Basil Burgess, VE3JEB
Assistant	Robert Humphreys, VE3HOW

Public Service

ARES Emergency Coordinator	Dan Goodier, VE3NI
Past Coordinator & AEC	Sean Conlin, VA3MED
Assistant EC - 1st Day	Michael Brickell, VE3TKI
Assistant EC - 2nd Day	John Duffy, VE3DRZ
Assistant EC - 3rd Day	Bob Boyer, VE3XBB
Assistant EC - 1st Night	Sean Conlin, VA3MED
Assistant EC - 2nd Night	Dave Harford, VA3DFH
Assistant EC - 3rd Night	Lorne Jackson, VE3CXT
CANWARN Manager	Peter Mosher, VA3PKM
Special Events / Walks Manager	Bob Boyer, VE3XBB

CLUB CALENDAR FOR 2008

June, 2008

01 Sun Sunday Brunch - Shopsy's
05 Thu Exec Meeting
08 Sun HF - 75/80 Meter Net
10 Tue VHF/UHF - 2 Meter Net
12 Thu Club Meeting
15 Sun HF - 75/80 Meter Net
17 Tue VHF/UHF - 2 Meter Net
19 Thu Radio Night at Club Station
22 Sun HF - 75/80 Meter Net
24 Tue VHF/UHF - 2 Meter Net
26 Thu Club Meeting - Pot Luck Dinner
28 Sat ARRL Field Day Contest
29 Sun HF - 75/80 Meter Net
30 Mon RAC Canada Day Contest

July, 2008

06 Sun HF - 75/80 Meter Net
12 Sat IARU HF World Championship
13 Sun HF - 75/80 Meter Net
20 Sun HF - 75/80 Meter Net
27 Sun HF - 75/80 Meter Net

Provisional Schedule Below...

August, 2008

03 Sun HF - 75/80 Meter Net
10 Sun HF - 75/80 Meter Net
17 Sun HF - 75/80 Meter Net

24 Sun HF - 75/80 Meter Net
31 Sun HF - 75/80 Meter Net

September, 2008

07 Sun HF - 75/80 Meter Net
14 Sun HF - 75/80 Meter Net
21 Sun HF - 75/80 Meter Net
28 Sun HF - 75/80 Meter Net

October, 2008

05 Sun HF - 75/80 Meter Net
12 Sun HF - 75/80 Meter Net
19 Sun HF - 75/80 Meter Net
26 Sun HF - 75/80 Meter Net

November, 2008

02 Sun HF - 75/80 Meter Net
09 Sun HF - 75/80 Meter Net
16 Sun HF - 75/80 Meter Net
23 Sun HF - 75/80 Meter Net
30 Sun HF - 75/80 Meter Net

December, 2008

07 Sun HF - 75/80 Meter Net
14 Sun HF - 75/80 Meter Net
21 Sun HF - 75/80 Meter Net
28 Sun HF - 75/80 Meter Net

NOTES

1. Meetings start 7:30PM at St. Thomas A Becket Church Hall, 3535 South Common Court unless otherwise noted.
2. Brunch is at 9:30AM unless otherwise noted.
3. Classes are from 7:00PM - 9:00PM at Meals On Wheels at 2445 Dunwin Drive

Visit our website: <http://www.marc.on.ca> for any updates of the calendar.

Two Meter Wavelength Optimum Spaced Cubical Quad Antenna

By: John Wendt WA6BFH

<http://www.geocities.com/siliconvalley/2775/quadpic.html>

In 1976 at the VHF/UHF Conference in Santa Maria, California, a conversation occurred which discussed the merits of various beam antenna designs. During this discussion the comment was made, "quads don't work on VHF"! This comment spurred an overnight design and assembly project that resulted in this 4 element optimum spaced quad beam. This same antenna design won the antenna gain measurement contest in the category of highest gain for the shortest boom length. It came in with a signal gain of 10.1 dBd. The next highest gain antenna was an Oliver Swan (later to become KLM) "bandpass" "log periodic" type yagi of 13 dB's with a boom better than twice as long.

The antenna should be assembled on electrically insulating material such as white polyvinylchloride "PVC" pipe. The first antenna of this type was fabricated of wooden furring strips, and 12 gauge copper wire. The dimensions are included in this information package along with recommended design tips. The antenna will provide a fine signal for any two meter home station, and has also worked well in the past for mobile or portable applications, as well as transmitter hunts!

Element dimensions

Using #12 American Wire Gauge (AWG.) THHN type copper wire like that used to wire electrical receptacles in home 115 Volt AC wiring, the wire lengths will be:

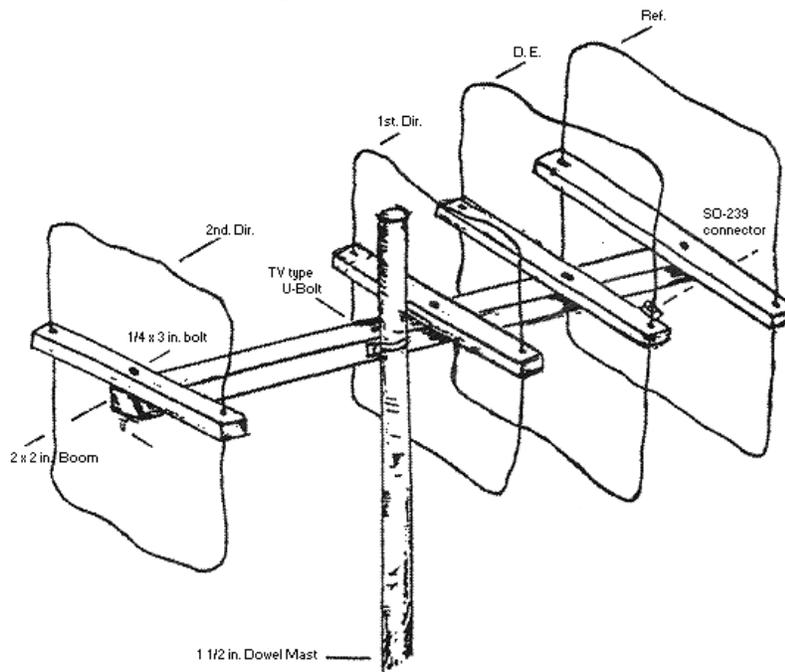
- Reflector (Ref.) 86 inches (making a square loop that is 21.5 inches per side)
- Driven Element (D.E.) 81.5 inches (or 20.375 inches per side) [Note feedpoint polarization]
- 1st. Director (Dir. #1) 78 inches (19.5 inches per side)
- 2nd. Director (Dir. #2) 75 inches (18.75 inches per side)

Leave the insulation on the wire! Strip off only a 1/2 inch at each end of the wire to either join and solder the loop elements for the Reflector and Directors, or to solder on the SO-239 or other female coaxial connector for the Driven element. The antenna will match 50 Ohm transmission line directly with no other device needed. An RF Choke of several turns of coaxial cable is recommended for symmetric antenna aiming.

After cross spreaders have been fabricated that are slightly longer than 1/4 th the element dimensions, they should be mounted on the antenna's boom. Let me emphasize again that all structural portions of the antenna must be fabricated from non-conductive materials. It is

recommended to build the first such antenna you attempt from wood. Fabricating all pieces can be done with simple hand tools, and the element "spreaders" can be cross notched and secured to the boom with 1/4 X 3 inch bolts, nuts, and lock washers. The element spacings are as follows:

- Reflector to Driven Element = 15.25 inches
- Driven Element to Director #1 = 14.75 inches
- Director #1 to Director #2 = 36.50 inches



Construction and Electrical Considerations

On the drawing with this article you will note the fabrication technique used for the wooden constructed antenna. A 1 1/2 inch TV antenna type "U-bolt" is used to mount the boom to the supporting vertical mast. 1 inch by 1 inch square stock was used for the boom, and 3/4 inch by 1 inch wooden strips were used for the element spreaders.

If the antenna is to be vertically polarized for use on FM (Frequency Modulation) or AM (Amplitude Modulation) the feedpoint connector should be installed as shown on the drawing. If Single Sideband (SSB) or Continuous Wave (CW) where horizontal signal polarization is used, the antenna should be rotated 90 degrees from that position shown. Thus for SSB or CW the spreaders would be

vertical, and more to the point, the side of the Driven element where the coax connector is seen, would be parallel to the ground!

Finally by positioning the coax cable used, running it back to the boom along the driven element's spreader, an "RF Choke" type "Balun" can be wound around the boom using about 7 turns of coax. Belden RG-213/U or RG-58/AU are recommended. Hold this "choke balun" in place with

electricians tape and or plastic "tie-wraps". If the smaller RG-58 is utilized, total coax length should not exceed 25 feet. Longer runs of this relatively "lossy" cable, will throw away signal gain wastefully on both receive and transmit! This smaller cable will also compromise the antenna's power handling capability. Using RG-213 the antenna can handle several hundred watts of power.

Personal Disaster Preparedness

The article below was originally presented by John Covington, W4CC. I do not think that we emphasize enough that when disaster strikes, we need to be prepared to take care of ourselves first before we can provide assistance to others. There is no way that an ARES responder can perform and function in an effective manner if they are concerned and worried if their own loved ones are safe and out of harms' way. While the article is written with North Carolina in mind, you can think ice storms, floods, and tornados for this location. Most of us will read this article and say, yes we should do this, well maybe it is time to act, and actually do it . . . write the plan and then make the necessary preparations. The one thing I can guarantee is, you will not have time when we find ourselves in the middle of a disaster.

This discussion has been presented at club meetings, civic groups and even over the Tarheel Emergency Net. As I mentioned then, the purpose of this discussion is to encourage you to think about how you should prepare for a disaster. There is no "one-size-fits-all" formula for disaster preparedness. Consider some of the points mentioned below and decide what preparations are best for you.

What is Disaster Preparedness?

Disaster Preparedness means taking steps necessary to make sure you and your family are safe and as comfortable as possible in the aftermath of a disaster.

Main Types of Disasters

It's not possible to prepare for every conceivable disaster, so think carefully about what hazards are most likely to affect you. These will vary greatly depending on exactly where you live.

1. Natural - in North Carolina, hurricanes and winter weather are the most disruptive, but can usually be

predicted a few days in advance. Flooding due to severe thunderstorms and tornadoes are not very predictable.

2. Technological (man-made accidental) - radiological, chemical releases; fires. Not predictable, but many hazards are identifiable in advance.
3. Terrorist (man-made - deliberate) radiological, chemical, explosions, etc. Not predictable.

Your Personal Preparations - Stay Put or Evacuate?

You need to consider both possibilities - sometimes the decision will be made by circumstances beyond your control. Staying put requires more preparation, but you retain your privacy. Evacuation places most of the burden of preparation on someone else. Evacuating to someone's home is nice, but not always possible. If you evacuate to a disaster shelter, you will be dry, well-fed and have no privacy.

For disasters not requiring immediate evacuation, prepare for a 72-hour "stay put" scenario. 72 hours is long enough for the worst part of the disaster to pass, or for you to make a smart decision about what to do next if it hasn't.

For disasters requiring immediate evacuation, have necessities (such as medicine) where you can get to them quickly. A ready kit is a good thing to have so you can be as self-sufficient as possible until you get established somewhere else.

Don't wait too long to make the decision to evacuate. Many flood deaths in this state have resulted from people waiting too long, and then their evacuation route disappears.

Consider carefully the psychological impact of a disaster on your family. Some people can just handle survival situations better than others. Even if your home is intact, evacuation may end up being the best thing to do.

Family Communications Plan

You and your family should plan how you will contact each other if you are not together when disaster strikes. Don't rely exclusively on cellular telephones since they usually work intermittently following a disaster.

Your plan should include designating an emergency contact person who lives out of town. Sometimes a long-distance call is actually easier to make than a local call during a disaster. Someone out of town may be more easily able to communicate among separated family members.

Make sure each member of your family has the number of this emergency contact in writing.

Staying Put

Ask yourself if you can survive 72 hours in your home without utilities (electricity, gas, water, phone)? You will most likely lose electricity and telephone service during a disaster. Natural gas and city water usually continue to be available (but not well water).

- Be prepared for both summer and winter weather since the survival conditions are very different.
- Always store several gallons of drinking water. You need drinking water more than anything else except air! You can use dirty water to flush your toilets, but drinking water must be clean.
- It is easy to test your preparedness for staying put (although your family may not think so). Turn the main circuit breaker off for a weekend and see how you do. If you can go the whole weekend without turning it back on, you are well prepared.
- Some people use generators to provide electricity. If you do, make sure you know how to connect your generator so it is not connected to the electrical grid!
- Natural gas or propane is usually available even after a disaster. Find out if you can use your gas appliances without any electricity. Gas stoves, water heaters and logs can probably be used without power, but ovens and furnaces usually can not.
- Neither landline nor cellular phones will work dependably after disasters. For landlines, have at least one phone available that does not require separate electricity to use. For cellular, have a power cord that allows you to use or charge the phone from your car battery.
- Have sufficient batteries on hand to power essential equipment, including flashlights and AM/FM/WX

radios. The radios will be your source of news about the disaster, as well as entertainment.

- Have sufficient light sources (flashlights, candles, cyalume sticks). Be careful with any source of ignition, such as candles.

Evacuation

If you must leave your home, make sure you have thought about what you need to take with you. For example, medicine will probably be hard to obtain after a disaster.

It's best if you can take all essentials with you so you can be as self-sufficient as possible until you get established somewhere else. Depending on the type of disaster, evacuation might be a slow process, and stopping along the way for supplies won't be possible. A 72-hour ready kit is the best way to make sure you have what you need, and is useful even if you stay put. You can make your own or purchase them already made (from suppliers such as www.nitro-pak.com). Ready-made kits are generic and will probably have a couple of items you don't need and will be missing an item or two you do need.

Some other things you must consider about evacuating:

- Have plenty of fuel in all of your vehicles -- your preferred vehicle might end up being unavailable.
- Have cash on hand. Credit cards and ATMs will not be useful while power is out.
- Have a map of the area. Familiar routes can be blocked by floods and storm damage, so you may end up taking unfamiliar roads.
- Find out -- in advance -- where disaster shelters in your community are established, and mark them on the map.
- Having a plan for getting your family back together in case you are not able to evacuate together.
- Establish a family communications plan. Designate someone outside the disaster area you will contact.

Items for a Basic 72-Hour Kit

This list is suggested by www.ready.gov and includes basic items you should have on hand for a disaster. Keep these items in a container that you can take with you if you need to evacuate, or locate them easily if you are staying put. This is not a "one size fits all" list, you should modify it to suit your circumstances. For example, you might want to add insect repellent and toothbrushes for personal comfort.

- Water, one gallon of water per person per day, for drinking and sanitation
- Food, at least a three-day supply of non-perishable food
- Battery-powered radio and extra batteries
- Flashlight and extra batteries
- First Aid kit
- Whistle to signal for help
- Dust mask or cotton t-shirt, to help filter the air
- Moist towelettes for sanitation
- Wrench or pliers to turn off utilities
- Can opener for food (if kit contains canned food)
- Plastic sheeting and duct tape to shelter-in-place
- Unique family needs, such as daily prescription medications, infant formula or diapers, and important family documents
- Garbage bags and plastic ties for personal sanitation

Conclusion

If you aren't motivated to spend any time on disaster preparedness, at the bare minimum, do the following:

- Talk to your family about this subject.
- Keep sufficient drinking water on hand.
- Write down important phone numbers.
- Keep your cars at least half full of fuel.
- Keep cash on hand.

Amateur Radio Disaster Preparedness

You must make sure your personally prepared for a disaster before you can even consider helping with Amateur Radio. If you are preoccupied with personal matters, you won't be able to help us. To be ready for disaster communications, do the following:

1. Train regularly with your local ARES group. You play like you practice.
2. Think about how you might best be able to help during a disaster. Some of us are good at installing antennas and equipment, others of us are better at operating on the air. Not everyone is suited to doing every job. Sometimes just having helping hands, spare equipment or supplies can be helpful even if you cannot operate the radios yourself. Generators need fuel, operators need coffee,

stations need to be set up. Figure out where you best fit in. Decide how you can help out if:

- a. you stay home. Can you deploy at a shelter or EOC for a few hours? Operate from home?
 - b. must evacuate. Can you deploy from where you have evacuated to, such as a shelter?
3. Have all resource materials you need in printed form. Don't depend on computers, PDAs and so forth as they may not work in a disaster, require electricity and are relatively fragile.
 4. If you use a computer regularly in your on-the-air operations, make sure you practice doing things such as calling nets and handling traffic the pencil-and-paper way once in a while. Remember, you are you may not be able to spare the amp-hours or the table space to run a computer.
 5. Have an Amateur Radio ready kit to supplement your personal ready kit. Some items to include:
 - a. Portable radio, antenna and power supply or batteries (2 sets)
 - b. Headset or earphones (you may be operating in a noisy area)
 - c. Any cables you could possibly need
 - d. Pencils and Paper
 - e. Clipboard (firm writing surface, you may not have one otherwise)
 - f. Radiogram forms (helpful but not absolutely required)
 - g. Operating aids (pink card, Field Resources Manual, list of ARRL numbered radiograms, and anything appropriate for your local area)
 - h. Small tools (multi-tip screwdriver, multitools, etc.)
 - i. ARES Identification Card, if appropriate
 - j. Important phone numbers and frequencies
 - k. Map of the area
 - l. Flashlight
 - m. Poncho - very small to store, only around \$2 and can be useful when you least expect.

6. If carried in lieu of a personal ready kit, a few other items may be helpful:

- For a short deployment, a bottle of water plus some crackers or something to eat requiring no preparation could make things much more bearable for you
- Medicine

- Toilet paper - small packets from MRE kits are very handy and don't take up much room.
- Moist towelettes

The Roving Reporter

The Roving Reporter recently interviewed John Grimmett, VA3JSG. As well as being a ham, John is an amateur astronomer, and also has extensive experience in construction. He supervised, and actually did, a lot of the club station construction.

RR: John, how did you become interested in amateur radio?

VA3JSG: My father was a ham, and there were always radios around when I was a kid. My dad was licenced out of the military. So I have always been interested, and there was always a shack at home. I was involved in building stuff up until the early 1980's and then other things intervened. I built Heathkits, for example their 26 inch colour TV. I also built stereos, amplifiers, test equipment, and so on.

RR: When did you get your ham licence?

VA3JSG: I got my licence finally in 2004. I had always wanted to do this, and in 2003 I did a lot of reading about the requirements. Over the years I had had scanners and had been into short wave listening. A guy who had been my best friend as a teenager got me interested again. His dad was a ham and had a shack with some relatively modern equipment in it and this caught my attention. I did the advanced test in 2007.

RR: How did you become a member of MARC?

VA3JSG: I had heard that when you wanted to get licensed the best way was to join a club. I looked around and settled on MARC as being best for me.

RR: Could you describe your station?

VA3JSG: At the moment I have two stations, one in the basement, with a test bench incorporated in it, and one in a bedroom upstairs. Right now the basement station is primarily dedicated to UHF/VHF, for which I use a Yaesu FT-897. Upstairs I have an Elecraft K2, and a home built 1500 watt amplifier, which I built from plans in the ARRL

handbook. I use an outboard MFJ tuner with it. I'm planning to consolidate the equipment in the basement shack eventually.

For antennas I have a UHF/VHF whip and the HF antenna is a 9 band Butternut vertical, with a tripod mount, on the roof. I have an Alpha Delta HF antenna in the attic as well. I would like to put up a tower and a beam eventually.

I have had to replace one of my lightning arrester elements, so I know I have been struck by lightning at least once. The arresters did the job as there was no damage to equipment. My biggest problem has been wind damage to the Butternut.

I use Logger32 for logging.

RR: What are your current interests in the hobby and future plans?

VA3JSG: I would like get back into building stuff, for example I would like to build a software defined radio, and a transmitter/receiver pair for HF. I also would like to do more restoration work. In the past I have restored vintage tuners and amplifiers, a lot of Macintosh stuff, for others.

I belong to Radio Amateurs of Canada, and I would like to become more involved in ARES.

RR: Are you involved in other hobbies?

VA3JSG: I'm an amateur astronomer, and am also involved in astrophotography. Both of these can be very time consuming as well as ham radio!

RAC MEMBERSHIP APPLICATION/SUBSCRIPTION TO TCA MAGAZINE

Please enter applicable choice(s) →

COMBINATION PACKAGE: 1 year RAC membership; (includes \$44.95 subscription for TCA) @ \$49.95 *	
1 year RAC membership only; no subscription to TCA @ \$44.95 *	
1 year TCA subscription; no membership to RAC @ \$44.95 * +	
Family membership; price per extra family member @ \$20.00 per year (one TCA per family) * (Does not apply to simple subscriptions.) (\$20.00 x)	
GST: 5%	
*Taxes applicable: 5% GST, 15% HST (NB,NS,NL) not included in the above amounts + Ontario PST of 8% applicable to TCA subscription without membership. PST (if applicable): 8%	

CONTACT INFORMATION

Name: Call sign:	
Address:	
City/Town:	
Province:	Postal Code:
Family Member Name	Family Member Call sign:
If you enter something on line above, a charge of \$20.00 will be added to your membership	
Email:	Phone #:

DONATION OPTIONS

Donation to the RAC Foundation enclosed	\$
Donation to the Defence of Amateur Radio Fund enclosed	\$
Donation to the Youth Education Programme enclosed	\$
Grand Total:	\$

PAYMENT OPTIONS (Cheque or)

Visa/MasterCard No:
Card Expiry Date (MM/YY):
Name on credit card:

Mail to:
 Radio Amateurs of Canada Inc.
 720 Belfast Road, Suite 217
 Ottawa, ON K1G 0Z5

