

HOT BANANAS

Oakville Amateur Radio Club

January 2003

Shack of the month



This is Michael VA3MVW on January 5 in his Oakville basement shack. Mike, who has been licensed since 1998, is active on 6m, 2m and 440 and is a big believer in satellite and in packet radio, especially tcp/ip over ax.25. Using his packet setup, as va3mvw@va3oak.ampr.org he can get small amateur-related email in and out of his house without phone or cable.

Mike, who also maintains the www.oakvilleamateurs.net web site, uses mainly Yaesu, Icom, and Ranger radios and a wide range of toys, eh, test equipment. Should we ever experience an ice storm, his shack can be run for a day or two on battery, and he has five handheld radios when the main batteries fail. Check out his shack and more on www.mvw.net/radio/.

Special Notice: Meeting Date Changes

January OARC meeting is planned as a joint meeting with Burlington radio club. The date is January 20, 2003. This is a third Monday of January. Time is as usual - 7:30 P.M. See page 4 for details.

Digital delights

Thanks to articles like last month's excellent "how to" piece by Denny, VE3OKD many Oakville hams are now on digital PSK-31 mode.

Here's a new article by Ernest, VE3ZUF

The digital PSK mode is spreading fast almost over all amateur radio bands. The BPSK with free software and very good propagation, with minimum HF energy is amazing. It makes it my favorite spot in digital portion of the radio amateur bands morning and early PM almost daily.

This time hams in Europe are still awake, in Canada, USA, Argentina, Uruguay and so on, the hams in "retirement" are available and the digital parts of bands are not overcrowded. You can watch your computer's screen and judge who probably is a sending message; CW folks are brief in reports and use CW abbreviations.

The BPSK mode has three big enemies

Phone people are typing stories about grandchildren, how to repair a garage roof and similar infos. Both conversations have own charm and interesting parts.

The BPSK mode has the three big enemies. 1. Heavy QSB. 2. Too wide signal of station (AMD under -18dB, -22dB is fine). 3. Overpowered transmitter beside you.

Fighting QSB can be done by a technical adjustment (horizontal and vertical antennas method) and to reduce the extensive contact - conversation. As in CW or phone mode the first rule here too is listen, listen and listen again. It pays off for me. I found how long the QSB period is and how "deep" QSB is with the chosen station.

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VE3HB

The Oakville Amateur Radio Club meets on the second Monday of the month at 7:30 p.m. from Sept. to June at the Red Cross, 167 Navy St. Guests are always welcome.

There is an informal gathering 7 a.m. most Saturdays at Angel's Diner at 369 Speers Rd. and a Friday 10:30 a.m. coffee session at Tim Horton's on Cross Road.

All are welcome.

VE3OAK - 147.015 +.600 (131.8Hz CTCSS)

VE3OAK - 444.325 +5 MHz

VE3OAK - APRS - 144.390 MHz

Net - Mondays at 7:30 p.m. (except meeting nights and holidays on 145.015.)

Web Site: www.oakvilleamateurs.net

Hot Bananas

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Submit story ideas, feedback, comments, articles or artwork to ve3hg@cogeco.ca or mail to:

Hot Bananas

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I have two sets of MACROS on my DigiPan software.

One is for fast, short QSO when QSB is really heavy and second MACROS more voluminous with information about station, weather, personnel mater and so on. First (fast QSO) MACRO starts as "OK1OKD de VE3ZUF k" then the next short report says RS, name, QTH, QRP and QSL via..... Last transmittion is TNX + SK. The QSO is done in short period of time before the QSB "catches me".

Do not hesitate to repeat the report.

When you have a solid reading on the counterpart station and not too much QSB, the second set of MACROS permits longer talks, with very important report on AMD and eventually taping special messages. I prefer the AMD reports, if possible, every time when changing antenna tuning, changing power, band and using different filters. The AMD report from counterpart station is essential.

When communication is OK I try to set lower power to prove PSK capability and the same time go easy on digi portion of a band, too. This is a basic courtesy to the other the hams. Anyway your transmitter should be running on 1/2 or less of max.power, otherwise due to the duty cycle, overheated rig will be a result.

Five to 30 watts

The power between 5W to 30W is adequate for BPSK. When you have no luck on the band with 30W, you have no luck with 200 W anyway.

How do I keep the record on QSO? I am not fast enough to absorb all info from the screen, especially when the text is mixed with garbage (and always is). I practice to save the whole QSO conversation and not only in DigiPan - LOG data.

Before I open the station I open an empty Microsoft Word file with the file name of date, for example: 2002Feb22. Then I open DigiPan, the transmitter is set on and tuned and the antenna checked.

If I am lucky and the QSO is done I *Copy* the DigiPan window and then *Paste* it into the open Word file and go immediately back to the DigiPan. There's no need to switch off the digi program or lose text in the DigiPan windows.

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CQ CQ CQ

Executives & Coordinators

President	Jack Livingstone VE3ITM
Vice President	Denny Zidek VE3OKD
Director-Membership	Russ Schwandt VE3JUZ
Special Projects	Name Call
Director-Secretary	Greg Foster VA3GGF
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Examiner	Jack Livingston VE3ITM
Internet Web Site	Michael Willems VA3MVW
Public Relations	Doug Smith VE3RG
Equipment/Shack	Mike Brown VA3GRL
QSL Manager	Ron O'Reilly VE3FII
DX Interest Group	Ron O'Reilly VE3FII

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Now it's up to you

Later you have two records; DigiPan LOG and the whole conversation in Word file 2002Feb22.doc. Now it is up to you; print it, read it from screen or just save it. All the QSO in one day are recorded in one file. It helps with a QSL job. The whole procedure really takes only few seconds.

Some questions come about usefulness of RST report. R – readability 0 to 5 is OK. S – signal strength 0-9 is acceptable, but using too fine scale is not easy to handle. I use the 9,7,4 scale. T- tone 0 to 9 is not making any sense in digi mode to me.

Info of QSB probably should be more practical (readability?). Strength report is visible on monitor to compare to other stations and can be judge by Squelch threshold icon. A signal meter on transceiver is no help in this case.

Make it more Canadian

Spending the time to set-up auto-printing QSL (in DDE Microsoft Office System) pays off. The hint to use the easy way to build your own QSL, to personalize it and make it more “Canadian”, is right here: The DigiPan program contains DDE QSL ready to use.

If you hold ALT+F9 in this file, hidden codes will show up (in weird shapes). Copy them and Paste these codes to a fresh Word file. (Hold Shift+F9 hides these codes.) Now you can type the text, shuffle the fields; add a picture, add special text and frames to create new QSL.

Remember: the DigiPan program must be open otherwise nothing work.

The Internet eQSL Service and E-mailing QSL is so fast and so convenient today. I use eQSL if it is applicable. (Many HAMS still prefer Bureau or nothing.)

I believe the future will bring new rules and tricks to handle the DIGI operation. For now it will be nice to hear or to read the other hams opinions about the digi procedure, for example in our *Hot Bananas* bulletin.

Happy DIGING and many DX QSO.

73,

Ernest, VE3ZUF
ve3zuf@rac.ca

Echo on VA3E_{cho}C's signal

Contesting brings out the best and worst in a radio station. Here Harry, VA3EC shares with us a painful lesson learned in the heat of a radio battle.

Reports of a cathedral sound and a huge echo could be heard from those heard on RAC's winter contest emanating from VA3EC's station. So many complained that I set out to track down the problem.

First I set up another radio to listen to what we were sending. We adjusted the mic gain, the audio transmit audio shaping and various other parameters to help reduce the echo, alas it was still pretty bad. The initial key down bang was extraordinary; the echo was blamed on the room.

I asked my wife for some cloth to help reduce the room echo. I placed cloth up all over the room on anything hard. It made a big difference. The complaints seemed to subside.

I sat down beside Greg VA3GGF who was operating at the time and started listening with the other head set.

On one transmission while Greg was calling CQ I felt certain I could hear my own breath louder than his voice through the headphones. BINGO, we were talking into the wrong headset!

When we change operators on the contest, we all use our own headphones with built in microphone. On one change over we forgot to switch the microphone plugs. With the plugs being identical in shape and colour, it was not obvious with all the wires laying on the table in the shack.

I was laughing hysterically and Greg thought I was just straightening out the microphone plugs. It's amazing what happens when the microphone is no longer across the room or laying on the table 4 feet away from your mouth! This creates a good case for putting an idiot box together with lights or else simply put some different colour tape on your head phone to make sure you are using the right one!

Harry VA3EC

Don't miss these special meetings

January 20/03

January OARC meeting is planned as a joint meeting with Burlington radio club. The date is January 20, 2003. This is a third Monday of January. Time is as usual - 7:30 P.M. The location is different this time - Halton Municipal Building on Bronte Road, north of QEW. The meeting will be held in renovated "Dakota room". The presentation will be done by Glenn Sanderson from Halton Police department and the theme is 9-1-1 services. Glenn promised to talk about radio hardware aspect as well as the organization side of service.

February 6/03

Speaker: Paul Sparrow (Education & Training Mgr from Duncan & Wright)

Topic: Introduction of Digital Imaging...Comparison of Film Based Photography & Digital Imaging

Location: Canadian Legion, Branch 60 Legion Road...Burlington, Ont.

Time: General Meeting starts at 7:30 PM

Short Business Meeting followed by Speaker.

Directions: QEW To Hamilton, Take Brant St. Exit, Turn Left onto Brant St...Go past 3 Traffic Lights, under the Railway Underpass, through next set of lights (Fairview St.) Turn Right at Next set of lights (Graham's Lane), Turn Right at Next Street (Legion Road)...2nd driveway turn Left into Legion Parking Lot...Park in back and go upstairs upon entering Building.

Basic station design

By Peter West, VE3HG

After almost 40 years of involvement in Ham Radio you might think I'm running out of things to learn. Oh, how I wish! There's always new challenges in Ham Radio. We've got digital modes unheard of 10 years ago. QRP is making a big splash with many hams finding it possible to work the world five watts or less. New high frequency bands might become a reality within a few years. All of this and more makes Ham Radio so much fun. But it sure can be frustrating as well. Harry, VA3EC's article about a misconnected microphone cable probably has happened to more than one of us. It certainly isn't the only thing that can go wrong. Fortunately, almost all radio-related problems are solvable.



Contesting is fun. Honest!

In this article, let's review the basics of station design for maximum efficiency, safety and fun.

These days anyone with a couple of thousand dollars can buy a very sophisticated transceiver, a workable antenna, a microphone and a key and be on the air an hour after unpacking everything. If all you do is chew the rag locally on VHF, UHF or check into the Ontario nets running on 40 and 80 meters, you might never give station design another thought. I know for years, I didn't.

Safety first

Most modern 100-watt equipment today is basically plug and play. The chances of encountering any lethal voltages are fairly remote. That doesn't mean we shouldn't be cautious.

For those of us with young children or adventurous pre-teens in the house, it's imperative that the Ham Radio station be out of bounds unless accompanied by an adult. That means the station should be either in a locked cabinet or in a lockable room. Childproof AC receptacle covers should be mandatory. There should be no way your equipment could be turned on (or worse put on the air) by accident or by mischief.

Your spouse should have some basic knowledge about how to turn off your equipment should it become necessary. There should be a fire extinguisher near the station. (You might laugh at this but I just about blew up the house two weeks ago using a spray-on contact cleaner whose fumes exploded when I applied power to an antenna tuner. What would have happened if I had been leaning over the open case when it blew! I should have read the label.)

These days, thanks to cable TV, many Hams don't ground their stations like they used to do. I can't emphasize enough the benefits of a good grounding system. This doesn't mean a number 14 wire to the Hydro ground. I've installed a six-foot copper pipe on the wall behind the station and it is connected by three strands of number 10 wire that runs out the basement wall to three eight food ground rods set 10 feet apart. I had a contractor drill a hole to the outside. I do not have another wire going to the Hydro ground.

A good ground system not only makes your station safer but will help cut down on QRN and will increase the potency of your signal. If you're running high power, a good ground system is imperative. The change to my ground system was partly responsible for clearing up some TVI (television interference) and RFI (radio frequency interference). Now I can run a kilowatt of RF while watching a TV set sitting on a wooden shelf above the amplifier. Torrid coils (snap-on types are available at RadioWorld) on all speaker leads, keyboard cords and 110-volt plugs have made high-power more manageable.

Convenience

When Harry, VA3EC, and I went to Dayton last year, we saw a slide show on station design and how Ham Radio stations had changed over the years. Back in the early days, equipment was often hand-made. Tubes ruled. Everything was housed in big steel boxes. A receiver could weigh 60 pounds and a transmitter twice that. Power supplies were so big that they sat on the floor and a cable ran to the equipment.



VA3EC's simple but effective setup.

These days, the rig can be so small that you need to tape it to the table to keep it in place. Most new radios have autotuners and can do everything but make coffee. With the rise of digital modes and sophisticated contesting and dxing software, the computer often takes the prime spot in front of the operator.

One of the neat tricks we learned about at Dayton was how to mount the equipment at an angle to the desktop to eliminate strain on the operator's wrist. If you've ever worked a 48-hour contest on your own, you'll appreciate the ergonomics.

Next month, we'll have a look at antennas for the small lot owner and station accessories. If there's interest, I'd like to explore a couple of other topics including how to run an amplifier, how to erect a tower, how to win a contest and how to get your cw up to 30 words per minute.



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QRT by VE3HG

That's it for this issue. I hope you're enjoying *Hot Bananas*. I know I've learned a great deal doing the layouts and writing some of the articles. I'm enjoying being your editor but I am issuing this warning: we will be looking for new talent next year. It's not hard to put *Hot Bananas* out. We've got lots of contributors and there's always lots of news in the ham radio world. But, I'm a big fan of sharing the responsibilities of club participation.

If you're interested in editing *Hot Bananas*, please let one of executives know. I will finish my term as editor in May. Next month, I will finish up the article on basic station design. If you've got an idea for an article, put your thoughts to paper. The members of the Oakville Amateur Radio Club are always interested in what other members have to say. Whether it's contesting (my favourite if you haven't guessed. Hi.), project building, antennas, QRP or digital communications, please send in an article.

73, Peter, VE3HG