



# Newscaster

The Official Publication of the  
Winnipeg Amateur Radio Club  
Winnipeg Senior Citizens Radio Club

February 2000

## TRANSMITTER IDENTIFICATION

BY Witold Kinser VE4WK

**Date:** February 14th  
**Time:** 7:30 p.m.  
**Place:** Sturge on Creek Regional Secondary School

### Other Important Dates:

Articles: March 1st. - Article Deadline March Newscaster

WARC: Mar 13 - Monthly Meeting  
Apr 10th - Home Brew Night  
May 8th - Meeting

WSC: Feb 10 - Breakfast - Garden City Inn  
Feb. 16 - Board Meeting

ARES: Feb 8th - Sled Dog Briefing @ VE4WSC  
Feb 12-13, Public Service Event- Sled Dog Races  
Feb 15 - Meeting - Future Directions of ARES

Other: Feb 19, 20 Guides on the Air (GOTA)

### NEWS from the Winnipeg Seniors' Radio Club by Gil Frederick, VE4AG

Television comes to VE4WSC! On January 14, "A" Channel featured our Club as their remote attraction on 'The Big Breakfast' program. It meant many members had to be at the clubrooms by 6 a.m. to open the door and prepare for the setup by the TV crew, and others on hand by 7 a.m. for their interviews. On-air time was a number of quick 'spots' from 7 a.m. until 9 a.m.; unfortunately, due to a technical problem, we lost the last 2 segments of our scheduled slots. But, watch for a re-appearance of the WSC members again sometime in April, when Jon Ljungberg comes back for another visit. We promise an even better show!

A big day at the Club on Wednesday, July 26, was the Cribbage Tournament. 8 teams (16 players) played during 2 hours in a (noisy) fight to be the Grand Champion. The winning team members were Ed Henderson, VE4YU and John Agar, VE4EI. This 'do' was followed by a re-run of the Christmas Party meal, with deep frozen leftovers cooked in the microwave to perfection, and the addition of other tasty items. A large variety of dainties were specially made by Gladys, VE4GE. The cribbage event organizer and Chief Chef (dressed for the occasion) was George, VE4GNG. Many others members were also in attendance to enjoy the fun and food. We also hear that sometime in the future the Club will be treated to a Chili Cook-off Contest. Get those recipes ready, folks.

The next Club breakfast will be held on Thursday, February 10th, again being held at the Garden City Inn, McPhillips & Jefferson. It starts at 9 a.m. For further details, contact the Club at 233-3122.

The February Board Meeting (with Vice-President George Moodie, VE4GOM, at the helm) will take place in the Clubrooms on Wednesday, February 16th, beginning at 9:30 a.m. Members are invited to attend these meetings.

Our President, Ed, VE4YU, will be basking in the sunshine of Mexico by the time you read this. Ed and Irene will have 2 months or so down there; you can talk to Ed on

WARC: Executive for 2000			
Past President	Norm Coull	VE4EH	885-1692
President	Darcy Wilson	VE4DDW	783-0421
Vice-Pres./ PR	Vacant		
Treasurer	Sue Collings	VE4SYM	694-1525
Secretary	Ruth Mills	VE4XYL	837-6915
Goodwill	Vern Dutton	VE4VQ	256-5346
Membership	Mariska Maguire	VE4MMG	256-3143
Program	Tom Mills	VE4SE	837-6915
Director@ Large	Vacant		

the air as he is taking his TS-50S along for contacts back home (and some DX as well).

The CFARS Group will again be on standby for the February 29th rollover. No problems are expected with computers at that time - but readiness is called for.

The 'Sparks' newsletter is being prepared, and will be mailed out to WSCRC members in late February. If you have any reports, news, or articles that you want to have included, contact Gil, VE4AG now.

You can get more up-to-date news from our homepage at [http://www.pangea.ca/~ve4wsc]

**MINUTES for W.A.R.C. January 10th, 2000**  
**Submitted by Ruth, VE4XYL**

A warm welcome to all from our President Darcy Williams VE4DDW, followed by introductions. There were 52 in attendance.

**MOTION**

That the minutes be accepted as printed in the newscaster. Moved Derek VE4HAY, Seconded by Bill VE4DL Carried

**TREASURERS REPORT**

Industry Can ada Amateur Centre  
 Voice 1-888-780-3333 (toll-free)  
 Fax: 1-613-991-5575  
 Email: spectrum.amateur@ic.gc.ca  
 Web: http://strategis.ic.gc.ca/spectrum

.....  
 Newscaster Advertising Rates:  
 All advertising is black & white and must be submitted in electronic format.

- full page \$75.00
- 1/2 page \$40.00
- 1/4 page \$20.00
- bus. card \$10.00

For more information or to place an ad please contact Tom, VE4SE or e-mail ve4se@rac.ca

.....  
 Comments or if you just want to reach us :

**Newscaster Editor**  
**Winnipeg Amateur Radio Club**  
**C/O VE4WSC**  
**598 St. Mary's Road**  
**Winnipeg, MB R2M 3L5**  
 http://www.freenet.mb.ca/amradio

From Sue VE4SYM, as of December 31, 1999 the bank balance is \$4566.34.

**QUERY**

Derek VE4HAY raised the question if WARC could donate some money to the Defence of Amateur Radio Fund. This issue to be discussed at the next executive meeting.

**PROGRAM**

Tom VE4SE still had not confirmed the February program but would announce it in the next issue of the newscaster. Now it can be announced, the program will be TRANSMITTER IDENTIFICATION, given by Witold Kinser VE4WK. A special thank you to Tom VE4AKI and Jack VE4LEE on a very interesting program about QRP.

**RAC REPORT**

Rick Lord VE4OV reported that Pat Giesbrect VE4PLG has recently resigned as SM for ARES. Rick congratulated her on a job well done and also reported she has received 2 congratulatory letters for her service. Now we are looking for a new Section Manager, if you or someone you know would to volunteer please contact Rick Lord VE4OV at 275 6980. RAC is also looking for Assistant SM's in Manitoba, especially in Brandon, Dauphin and Northern areas. A new band planning committee has been formed under the chairmanship of Bob Nash VE3KZ. In Manitoba our representative is Dr. Rob Kaufmann VE4GV. ARES and affiliated club documents have been moved from password protected areas on the RAC web site and are now accessible to all.

The USA has announced the long awaited Amateur radio restructuring. There will be only 3 license classes and one code speed of 5wpm. RAC directors are discussing amongst themselves if RAC should approach IC for a reduction in code speed in Canada to 5 wpm for full HF privileges. STAY TUNED.

**ARES REPORT**

Jeff VE4MBQ was unable to attend so we will have to wait for the Y2K report. Tom VE4SE reminded all about the ARES general meeting January 18th at 19:00 hrs. Also the upcoming operation for the dog sled races for the Festival du Voyageur Feb 12th and 13th. Volunteers are needed and anyone interested to get in touch with Jeff VE4MBQ. This is a fun event to do and to watch the dog sled races at the same time.

**DX SLEUTHS**

Adam VE4SN had no report about sleuthing at this time, but did mention as QSL manager about the many QSL cards with call signs that do not exist. Its a big job to try and track these people down, if they exist, and wonders how someone could give a 59 report and get the call sign wrong.

**JACKETS**

Darcy VE4DDW reported that over the holidays he didn't get to price out the costs with different companies. He hopes to have a report at the February meeting.

### **NEW BUSINESS**

Tom VE4SE will assume the position of Vice President for the balance of this term. Tom encouraged members to help the executive with ideas and if anyone had ideas for programs contact the executive and they will follow it up. Also in September, Ruth VE4XYL will have completed her 3 year term as secretary. We are now looking for volunteers.

Meeting adjourned at 20:05hrs. Next meeting will be February 14th 2000 at 19:30hrs.

Happy Valentines Day to all.

### **Hints & Kinks de Ralph, VE4RY**

When drilling holes in small objects such as utility boxes and other hardware or sheet metal, the usual method used to hold these objects, especially when a vise isn't practical, is to try to grip the item with a pair of pliers or vise-grips.

This can result in an unexpected loss of grip and the drill or drill press takes over and dangerously spins the item around, while you hopefully escape unharmed, and the damage is minimal.

I have found it very handy to keep a 4-inch C-clamp near my drill press, and use this to hold these items for drilling. You can add masking tape to the clamp surfaces to protect from marring your project...and the C-clamp itself becomes a nice safe handle when clamped to the object.

## **Contest Calendar**

### **February**

13-14	0000-2400	RTTY W-Wide RTTY WPX Contest
13	0100-0700	CW/SSB Utah 160Meter Challenge
13-14	1200-1200	CW/SSB PACC
13-14	1200-1200	CW/SSB Carnaval of Loulé Contest
13	1100-1300	CW Asia-Pacific Sprint
13-15	1400-0200	SSB YLRL YL-OM Contest
13-15	1400-0600	CW QCWA QSO Party
13-14	2100-0100	CW RSGB 1.8MHz Contest
14	0000-0359	CW North American 'Sprint'
20-21	0000-2400	CW ARRL DX Contest
20-21	0000-2400	SSB YL-ISSB QSO Party
26-28	2200-1600	SSB CQ W W 160 Meter Contest
27-28	2 periods	SSB/CW North Carolina QSO Party
27-28	0600-1800	SSB REF
27-28	1300-1300	CW UBA
27-28	1400-0200	CW YLRL YL-OM Contest
27-28	1500-0900	CW RSGB 7MHz Contest
27-28	2200-0400	CW/SSB Co. QRP Winter QSO Party
28	2 periods	CW HSC Contest

### **March**

05-07	1600-2359	CW CZEBRIS Contest
06-07	0000-2400	SSB ARRL DX Contest
06-07	2200-0159	RTTY Open Ukraine
09-10	1700-1700	CW/SSB CLARA & Family HF
13-14	0000-2400	CW/SSB World Wide Locator Cnst
13-14	1200-1200	CW Commonwealth Contest
13-15	1400-0600	SSB QCWA QSO Party
13-14	Periods	SSB DIG QSO Party
14	0700-1100	SSB UBA Spring Contest
14	1800-2200	RTTY High Speed Sprint
14-15	1800-0100	CW/SSB Wisconsin QSO Party
20-21	0000-2400	SSB YL-ISSB QSO Party
20-21	0001-2400	CW/SSB Bermuda WorldWide
20-22	2 periods	CW/SSB Virginia QSO Party
20-22	0200-0200	RTTY BARTG Spring RTTY
20-21	1200-1200	CW/SSB Russian DX Contest
20-21	1200-1200	SSTV DARC HF SSTV Contest
20-21	0000-2400	CW/SSB Alaska QSO Party
20	4 hours	CW/SSB Somerset Homebrew
27-28	0000-2400	SSB CQ WW WPX

### **VE4Website**

Check this site out.

<http://www.ve4.net/index.html> It is maintain by VE4ZAP and offers a lots of nice features. Plus he is keeping it up to date. Please let him know if there are any links he should add or that are not working.

## **Parkside Appliance & Electronics**



**Sales & Service of  
Computers & Software  
Home repairs offered**

**John, VE4JNF**

**386 Belvidere Street**

**885-9278**

**[www.escape.ca/~ve4jnf](http://www.escape.ca/~ve4jnf)**

**[ve4jnf@escape.ca](mailto:ve4jnf@escape.ca)**

## **WINNIPEG ARES Y2K OPERATIONS**

### **Jeff Dovyak VE4MBQ Emergency Coordinator**

A comprehensive report of Winnipeg ARES (WARES) Y2K operations has been compiled and circulated to Don Mackinnon VE4DJM Manitoba ARES and the served agencies (MEMO, RCMP, Mb Health, Mb Hydro, 17 Wing, WPS, WFD, City Emergency Program).

For the report that you are reading here the WARES Executive asked me report on two subjects: Misconceptions about WARES Operations and Summary of WARES Y2K Operations.

#### **PART 1**

##### **MISCONCEPTIONS ABOUT WARES OPERATIONS**

It was agreed at a recent WARES Executive meeting that there are some people on the fringes of amateur radio who knowingly or unknowingly spread rumors about WARES that have no factual basis. One member of the Executive (not MBQ) said "I'm tired of this crap, some people need to be set straight". The next four points were identified at said Executive meeting for follow-up in the Newscaster. Hopefully the "whiners" (according to another Executive member, again not MBQ) read their Newscasters BEFORE discarding them.

1. Toward the end of December (just before Y2K) one amateur NOT involved in WARES Y2K operations was trying to circulate a story that Radio Amateurs of Canada (RAC) did not sanction ANY of the ARES Y2K operations in Manitoba and therefore our RAC insurance was withdrawn.

ARES units operate fairly autonomously from RAC HQ and DO NOT submit proposed operations for RAC approval or rejection. In fact, RAC DOES NOT provide ARES units or ARES members with any insurance by virtue of ARES affiliation. There IS a RAC affiliated liability insurance coverage for clubs that PURCHASE the insurance coverage from the insurance carrier - RAC has NO VETO on events that are covered.

In Manitoba, ARES units and their members who carry out amateur radio operations on request of MEMO or requests through MEMO ARE covered by the MEMO-ARES Memorandum of Understanding (MOU). The MOU provides ARES operators on OFFICIAL operations or OFFICIAL exercises with Workers Compensation Benefits (WCB) in case of injury. The MOU also sets out a mechanism for ARES units and ARES operators reimbursement for travel costs or reasonable out-of-pocket expenses during an OFFICIAL operation.

In the City of Winnipeg, ALL registered volunteers have insurance coverage. ARES - Winnipeg Fire Dept Y2K

volunteers were REGISTERED as VOLUNTEER FIREFIGHTERS by the Deputy Fire Chief according to a list supplied by MBQ.

Under The Emergency Measures Act, registered volunteers engaged in OFFICIAL duties during a Local State of Emergency or a Provincial State of Emergency are protected by WCB coverage.

2. Some amateurs have made the Y2K volunteers feel that their contributions were REALLY MEANINGFUL by going on and on (on the air) about how overblown Y2K concerns were, nothing happened, it was a total waste of time, ARES really overdid it, if the authorities really wanted us they would use the Radio Act and FORCE us to help, etc.

WARES Y2K operations were planned and carried out because of OFFICIAL REQUESTS from MEMO, RCMP, Mb Health, Mb Hydro, 17 Wing, City Emergency Program, Winnipeg Police Service, and Winnipeg Fire Dept. While WARES coordinated the amateur response it was not done in isolation but in consultation with SENIOR officers from the above agencies AND with representatives from WARC, MRS, WSCRC, 1st SVV. ARES does not FREELANCE, it responds to requests from AUTHORIZED officials.

It must make some jawbones feel very satisfied to belittle efforts of those amateurs who take the time to get involved in their communities. How do you folks think newer amateurs feel about volunteering when they only hear negative blabbering about their performance during a roll-call or when checking into a net?

3. A couple of amateurs have been heard grouching about WARES tying up all the repeaters and that ARES should have their own systems.

WARES DOES NOT run nets on repeaters WITHOUT permission of the repeater owners. We avoid using popular repeaters for our routine, scheduled public service events. For Y2K, VE4WPG was tied up by WARES for FOUR hours; VE4CNR was tied up by WARES for THREE and ONE-HALF hours. Use of these two repeaters by WARES for Y2K was essentially the FIRST TIME since the 1997 Flood of the Century that WARES needed to run some closed, directed nets for a prolonged period (if four hours in two years is a prolonged period).

It is strange that these anti public service amateurs don't seem to mind that the Manitoba Marathon ties up two or three repeaters for SIX or SEVEN hours EVERY YEAR.

4. Public Service communications is one way of paying back the community at large for the radio spectrum enjoyed by ALL amateurs - even those that never get involved but always seem to have a smart remark about something they generally don't know much about.

I guess in an ideal world the complainers might come out to a meeting or even volunteer to cover a public service event to gain some "inside" experience with subjects that they have fun trashing but no real knowledge about.

## **PART 2**

### **SUMMARY OF WARES Y2K OPERATIONS**

Over seventy amateurs volunteered for Winnipeg ARES Y2K operations in the Winnipeg area. Similar to our 1997 Flood Operations we did not encounter any significant operational difficulties that will cause any radical planning changes for future operations. Also, for the majority of operations our volunteers provided their own equipment, except for the antenna pool that was temporarily established at the City EOC.

Antenna Pool was composed of 2m Mag-Mount antennas and Twin-Lead J-Pole antennas. Thanks to VE4s: AJR (2), DL, MBQ, RHG, SE (4), VZ, and YWG (4).

In terms of equipment I will single out some amateurs that loaned our gear for a prolonged period. Please keep in mind that ALL of the volunteers used their own personal equipment. Special thanks to:

RCMP "D" Division  
**Wayne Schellekens VE4WTS** TM-733  
 WARC TS-450S, IC-28H, power supplies  
**Wayne Warren VE4WR** DCI Intermod Filter  
**Prairie Storm Prediction Ctre** DCI Intermod Filter  
**Ben Bond VE4BBB** Power Supply

MEMO  
**Dick Maguire VE4HK** IC-28H and power supply

Very fortunate to have the IC-28H on hand at MEMO. The station radio, a TM-V7A was TERRIBLE for intermod, even with a DCI Filter. It was soon put away and the IC-28H performed great.

Repeater owners in Manitoba have been great supporters of ARES public service operations. For Y2K operations thanks to:

**Manitoba Repeater Society** VE4WPG (Fire) VE4MAN (RCMP)  
**Dauphin Amateur Radio Club** DARC Linked Network (RCMP)  
**Prairie Mobile Communications** VE4CNR (Police)

**MEMO Radio Room** VE4EMO 1200h 31DEC to 1400h 01JAN  
 Volunteers were VE4s: EH, HAZ, HK, PLG, WF, XYL

**RCMP "D" Division EOC** VE4MPD 1500h 31DEC to 0900h 02JAN  
 Volunteers were VE4s: BBB, DDC, GWB, MAB, MBQ, RCJ, SE, SN, WR

**RCMP Headingley Detachment** VE4AAQ 1500h 1DEC to 0900h 02JAN (on-call) Volunteers were VE4s: GWN, KU, TV (KU and TV brought LOTS of gear)

**Manitoba Health EOC** VE4MBH 1500h 31DEC to 1230h 01JAN (on-call) Volunteers were VE4s: AIM, GNG, UNX

**Manitoba Hydro Control Centre** VE4MA 2030h 31DEC to 0215h 01JAN Volunteers were VE4s: AFL, QB

**17 Wing CFB** Winnipeg VE4BB 1300h 31DEC to 0300h 01JAN Volunteers were VE4s: SET, VQ, VZ

**City of Winnipeg EOC** VE4EOC 2030h 31DEC to 0145h 01JAN Volunteers were VE4s: KAZ, MBQ

**Winnipeg Police Service** VE4YWG 2200h 31DEC to 0130h 01JAN Volunteers were VE4s: AND, CDP, DDW, GMC, HAY, MBQ, MMG, TJR, VID

**Winnipeg Fire Department** VE4SVV 2200h 31DEC to 0200h 01JAN Volunteers were VE4s: CAT, CRS, DAN, DAR, DB, EA, EIH, ESX, GDN, GP, GRM, HGD, HO, HT, IF, JHJ, JS, KEF, KLM, LEE, MAQ, MBQ, MAT, MPH, RPG, RSS, SJC, SYM, TRO, UK, VD, KC8LNE and on-call at home BDB, YK

**Stand-by Volunteers** 0700h to 1600h 01JAN VE4s: AJR, KAJ, MJM, QSG, YG, WTS

Some of our Y2K operations were "firsts" in that we had not previously been involved with RCMP, 17 Wing, Mb Health, Mb Hydro, or WFD. Very favorable comments received from all organizations that we supported. Most volunteers enjoyed their duties (some WFD volunteers got to go to calls "Code Four" or lights and siren). By being categorized as Volunteer Firefighters by WFD we turned the clock back over one hundred years and now have an established precedent for NOT being required to sign a waiver to ride Fire apparatus (and have insurance coverage).

WPS and WFD volunteers were recognized by the City of Winnipeg at the 18JAN WARES meeting. MEMO Radio Room volunteers are being recognized by the Province 01FEB. Hopefully the other organizations that were so impressed with us will do the right thing for their volunteers.

## **Selecting a Multi-Band Vertical** **Copyright Bencher, Inc. 1997-99**

part 3

### **A Better Way**

Could there be a better way to design a multi-band vertical?

WODN, Don Newcomb, then a professor at a major midwest university, thought so. Don developed and secured several patents on what is a truly superior design - the Butternut vertical. Don's patented antenna design is entirely different from other commercially offered vertical antennas. He started with a basic vertical, 26 feet long, and instead of festooning and limiting it with traps, he designed a multi-band matching network whose sole purpose is to match the 50 ohm coax to the antenna. Don's unique design uses the whole antenna to radiate on each band, with the exception of 6 and 15 meters, which will be discussed later.

This means that all of the antenna radiates on each band instead of a portion, as with the other allegedly comparable antennas offered. And, with the whole antenna radiating, the RF reaches the top of the antenna, instead of being choked off by lossy traps further down. Even though the physical length of the antenna is shorter than some competitive antennas for the low bands, the trap free design when coupled with a decent ground make it more than competitive on the bands.

There are other significant advantages too - being trap free the SWR bandwidth is considerably enhanced, even though an efficient ground serves to reduce it. (Which makes an interesting conundrum - a longer antenna has more bandwidth, but a more efficient ground narrows the bandwidth - the end result is that the bandwidth of an efficient antenna and an inefficient is often about the same. The only real difference then becomes that the efficient antenna radiates far more power than the inefficient antenna. Which would you want?)

At the higher bands the real length of the antenna exceeds 1/4 wavelength so that the angle of radiation is lower, enhancing DX performance.

The matching network used is an ingenious combination of high-Q coils fabricated from large diameter aluminum wire, and heavy duty high voltage ceramic transmitting capacitors. Needless to say, there are no traps, "high performance" or otherwise. Traps cause loss. Period.

On the Butternut vertical, for 15 and 6 meters a different approach is used. Decoupling stubs run parallel to the antenna, which result in the antenna radiating as a slightly extended, full-sized, trap free quarterwave vertical on fifteen meters, and as a 3/4 wavelength vertical on 6 meters.

The ingenious Butternut design lends itself to several different methods of mounting and installation. The antenna can be mounted above ground on a roof, and if that is the best solution a complete accessory roof mounting kit is offered. Also, roof mounted antennas require tuned radials for best efficiency. A compact set is offered as an option, but the manual accompanying the antenna describes the simple steps to make your own. Alternately, pieces of wire cut to length will do very well, and again complete instructions are offered in the manual.

Perhaps the most common installation method is ground mounting. With Butternut verticals, it is very simple - a 24" tube is pounded into the ground, and the antenna is mounted on top of it. No guy wires are required. Radials are

placed on the ground radiating from the base of the antenna, and are attached to it. If the radials are properly installed (see above) they soon disappear into the thatch of the grass and the resulting installation will offer many years of superb performance.

Another way the antenna can be installed is with the accessory Counterpoise Kit. The antenna is mounted on a post or mast so that the base of the antenna is about seven feet above ground. The counterpoise assembly is mounted immediately below it. Any counterpoise must be considered a compromise for any vertical HF antenna, and if a proper radial system or a roof mounted installation with tuned radials is possible that would be the preferred approach. But when that is not possible the Butternut counterpoise creates a fairly effective artificial ground that still easily outperforms the "no-radial" and trapped antennas, even with their built-in counterpoises.

It should be noted that in the last year or so other vertical manufacturers have begun singing the praises of counterpoises so that they can retain their "no radial" design purity. One example is particularly ludicrous - where the manufacturer offers an 80 meter kit that calls for several "counterpoise wires placed on the ground around the antenna." To any casual observer these would look like radial wires but since the associated antenna is widely promoted as a no-radial vertical clearly they can't be radials. So instead we put a fig leaf over them and call them counterpoise wires. Right?

In any case, that design, even though it uses radials, has so many traps its performance on the low bands in particular is very limited.

For most users, what is the problem with radials? Especially when they add a considerable boost to your signal? True, in a few installations any significant radial system simply is not practical for reasons beyond the control of the operator. But even in such a setup Butternut verticals will work as well and usually outperform the no-radial designs, thanks to the trap free design that allows the whole antenna to radiate. An antenna with no radials is clearly better than no antenna at all, but if properly designed it will always work better with a radial or counterpoise system.

So OK. Instead of a Butternut you elect to put up a "no-radial" antenna and make it work better with radials. Right?

Maybe, maybe not. Indeed, probably not. How come? The problem here is that frequently the designer of the "no-radial" antenna was able to achieve a decent match and SWR on the amateur bands only thanks to the losses and poor coupling to ground inherent in his or her design. Adding radials to such an antenna improves the efficiency, and suddenly the losses that insured a good match start to disappear. The antenna impedance changes, beyond the controllable range of the tuning network. But not to worry - the manual for such antennas usually specifically tell you not to add radials - they warn you that the antenna will not tune - they just don't tell you why.

One last point to consider - all Butternut HF verticals work on 80 meters and can additionally be used on 160 meters with the accessory Butternut 160 meter Top Band Resonator. Only a few "competitive" vertical antennas operate on 80 meters even with accessory kits, and fewer still operate on 160.

There is a lot of gobbledygook around about multiband vertical antennas, most of it from manufacturers who are trying to gain sales by claiming to defy the laws of physics. Most of these claims are better suited to fertilizing roses rather than educating potential customers. They rely on a sad reality - almost any amateur who puts up their product will hear signals and work people, and then think he got his money's worth. He is excited, and tells all his friends what a great antenna he has. What that amateur does not realize is that other products that cost no more money will far outperform what he got snookered into buying, simply because he has no basis for comparison.

Another marketing technique you will see in the ads is comparing a certain vertical against another unnamed product, of course making the advertised product out to be far superior. And so it might prove - there have been some dreadful products marketed at one time and another, long since discontinued. Further often they have been in use for years, quietly deteriorating in the weather, and are fed with waterlogged coax. Then a new antenna with a new feed line is put up near by for the purposes of "A/B" testing. That it works better is then used in the advertisements to suggest that the advertised product is clearly better than ALL other such antennas. It should appear obvious that is probably not so.

If HF verticals without radials were as good as HF verticals with radials, Butternut would certainly manufacture such a product. After all, Butternut has been manufacturing verticals for over 20 years. No-radial verticals aren't rocket science. Anyone can make a lossy, low efficiency antenna. We know better - and so should you. If you purchase a Butternut vertical, and go to the trouble to install it properly, you will have installed the best multi-band design presently available, and the one that will give you the best results for years of trouble free operation.

For a further expansion on some of the technical points raised here, see "Dirty Little Secrets From the Antenna Designer's Notebook" also on this site.

### **VE4 Section Manager Resigns By Pat, VE4PLG**

---

I would like to take this opportunity to clear up a misunderstanding as to the reason I resigned my position as Section Manager for Manitoba. From the comments being made to myself it seems that everyone was told I resigned due to ill health. Well, that is a contributing factor, I have arthritis and do have problems getting around at times, but it is not the whole reason. The biggest problem I had was getting help or guidance of any kind in performing my duties.

The most help I received came from Pierre Mainville and he lives in southern Ontario. I received very few items I was able to put into my column. I was informed of Silent Keys only occasionally and sometimes not at all. As part of my job I would send the information into RAC notifying them of the Silent Keys and if I had the address would write to the family on behalf of RAC. I had asked for an Assistant Section Manager and had one person say sure he would help and that was the last time I ever heard from him. So you can see the kind of frustration I was having. This past little while my family has been having problems, the latest being a burglary at my daughters' house. As far as I am concerned Family "MUST" come first. I am also at this time trying to prepare for retirement from work (not for about 2 years yet) but there is a lot of planning to do. I hope I have cleared up this misunderstanding about my health and resignation.

### **Winnipeg ARES Report by Jeff, VE4MBQ - Winnipeg EC**

---

Our 18JAN00 meeting was the best attended meeting his year! Shauna Eggertson from SAR Manitoba gave us a very informative and entertaining lecture "Dressed to Survive" on dressing for the cold. We even heard of some senior members clothing fetishes.

SSGT Paul Kentziger from Winnipeg Police Service, on behalf of the City of Winnipeg, presented our WPS and WFD volunteers with a fine token of appreciation - it's a distinguished looking pen with the City Crest and Winnipeg ARES Y2K Team" embossed on it. For those of you that were not able to attend please see me at the FEB or MARCH WARC or WARES meetings or at coffee Saturday morning before 0915h. After MARCH I will keep any unclaimed pens for myself!

WARES is providing volunteer amateur communications for Festival du Voyager Sled Dog Races at The Forks FEB 12 & 13. The volunteer briefing will be TUE 08FEB 1900h at WSCRC 598 StMarys Rd.

Our next monthly meeting is TUE 15FEB 1900h at Sir Wm Stephenson Library 765 Keewatin Street. Don Mackinnon VE4DJM, Manitoba ARES SEC will be giving us a presentation entitled "Future Directions of ARES".

### **USA Amateur Restructuring is Here: Three License Classes, One Code Speed**

---

NEWINGTON, CT, Dec 30, 1999--Amateur Radio will get a new look in the new millennium. The FCC today issued its long-awaited Report and Order in the 1998 Biennial Regulatory Review of Part 97--more commonly known as

"license restructuring." The bottom line is that starting April 15, 2000, there will be three license classes--Technician, General, and Amateur Extra--and a single Morse code requirement--5 WPM.

"We believe that an individual's ability to demonstrate increased Morse code proficiency is not necessarily indicative of that individual's ability to contribute to the advancement of the radio art," the FCC said.

Besides drastically streamlining the Amateur Radio licensing process, the FCC said its actions would "eliminate unnecessary requirements that may discourage or limit individuals from becoming trained operators, technicians, and electronic experts."

Although no new Novice and Advanced licenses will be issued after the effective date of the Report and Order, the FCC does not plan to automatically upgrade any existing license privileges. The ARRL had proposed a one-time across-the-board upgrading of current Novice and Tech Plus licensees to General class, but the FCC declined to adopt the idea. This means that current licensees will retain their current operating privileges, including access to various modes and subbands, and will be able to renew their licenses indefinitely.

Starting April 15, 2000, individuals who qualified for the Technician class license prior to March 21, 1987, will be able to upgrade to General class by providing documentary proof to a Volunteer Examiner Coordinator, paying an application fee, and completing FCC Form 605.

The FCC's decision not to automatically upgrade Novice and Tech Plus licensees means the current Novice/Tech Plus HF subbands will remain and not be "refarmed" to higher class licensees as the ARRL had proposed. The FCC said it did not refarm these subbands because there was "no consensus" within the amateur community as to what to do with them.

As it had proposed earlier, the FCC decided to lump Technician and Tech Plus licensees into a single licensee database, all designated as "Technician" licensees. Those who can document having passed the 5 WPM Morse code examination will continue to have the current Tech Plus HF privileges. "If documentation is needed to verify whether a licensee has passed a telegraphy examination, we may request the documentation from that licensee or the VECs," the FCC said.

In addition to reducing the number of license classes from six to three and eliminating the 20 and 13 WPM code tests, the FCC also will reduce the number of written examination elements from five to three, authorize Advanced Class hams to prepare and administer General class examinations, and eliminate Radio Amateur Civil Emergency

Service (RACES) station licenses. RACES will remain, however. "After review of the record, we conclude that we should eliminate RACES station licenses because RACES station licenses are unnecessary for amateur stations and amateur service licenses to provide emergency communications," the FCC said.

Under the new licensing scheme, there will be four examination elements. Element 1 will be the 5 WPM Morse code exam. Element 2 will be a 35-question written test to obtain a Technician license; Element 3 will be a 35-question written test to obtain a General license, and Element 4 will be a 50-question written test for the Amateur Extra license. The FCC has left it in the hands of the National Conference of VECs Question Pool Committee to determine the specific mix and makeup of written examination questions. Current Amateur Radio study materials remain valid at least until the new rules become effective in April.

The FCC's new licensing plan means someone will be able to become a ham by passing a single 35-question written examination. The plan also simplifies and shortens the upgrade path from the ground floor through Amateur Extra--especially since amateurs will only have to pass one Morse code test.

Elimination of the 13 and 20 WPM Morse requirements also means an end to physician certification waivers for applicants claiming an inability to pass the Morse code examination due to physical handicap.

The effective date provides a window of upgrade opportunity for current Advanced licensees. Between now and April 15, current Advanced holders may take the existing Element 4B, a 40-question test, giving them credit for having passed the current Extra written examination. Likewise, holders of a Certificate of Successful Completion of Examination (CSCE) for Elements 3B or 4B dated on or after April 17, 1999, will be able to qualify for General or Amateur Extra respectively when the new rules go into effect on April 15, 2000.

The FCC disagreed with the League's suggestion that it undertake a restructuring of operating privileges along with licensing restructuring. "We believe that in light of ongoing discussions concerning implementation of new and more modern communications technologies within the amateur service community, we should accord the amateur service community an opportunity to complete such discussions and possibly reach a consensus regarding implementation of new technologies before we undertake a comprehensive restructuring of the amateur service operating privileges and frequencies," the FCC said in its Report and Order.

In its amendments to Part 97, the FCC's Report and Order refers to a "Club Station Call Sign Administrator," something that does not exist under the current rules and



which was not explained in the R&O itself. An FCC spokesperson said the Commission plans to issue a Public Notice soon to explain the program and to solicit qualified entities to serve as call sign administrators for club station applications.

A copy of the entire Report and Order (FCC 99-412) is available at <http://www.arrl.org/announce/regulatory/wt98-143ro.pdf> or at [http://www.fcc.gov/Daily\\_Releases/Daily\\_Business/1999/db991230/fcc99412.txt](http://www.fcc.gov/Daily_Releases/Daily_Business/1999/db991230/fcc99412.txt).

### **RAC Bulletins**

<http://www.rac.ca/~racnews/othernotices/racbulletin.htm>

### **00-001E**

New HF Band Planning Committee

The RAC Board of Directors has appointed a new committee to advise on revisions and improvements to RAC band plans covering the spectrum from 1.8 to 29 MHz. The new committee will be chaired by Bob Nash VE3KZ.

Among other things, the committee will consider the proposed restructuring of the HF Amateur bands in the USA as proposed by the ARRL and by the FCC and offer advice and recommendations for changes to the Canadian plans if appropriate. (The current RAC HF bandplan was prepared by a committee chaired by Pat Doherty VA3PD, and was approved in 1995)

The committee will also review the changes to the 40 metre band proposed by the IARU, and recommend a Canadian position on the changes.

And finally, the committee has also been asked to consider possible new HF amateur bands between 1.8 and 30 MHz and recommend priorities for RAC in dealings with the Canadian Government and the ITU if appropriate.

On his committee, Bob will have the following representatives from across Canada.

Augustus Samuelson V01MP

[gussam@voyager.newcomm.net](mailto:gussam@voyager.newcomm.net)

John Connor VE3TG [ve3tg@rac.ca](mailto:ve3tg@rac.ca)

Garry Hammond VE3XN [ghammond@gate-way.net](mailto:ghammond@gate-way.net)

Robert Kaufmann VE4G V [rkaufman@magic.mb.ca](mailto:rkaufman@magic.mb.ca)

Donald Moman VE6JY [ve6jy@freenet.edmonton.ab.ca](mailto:ve6jy@freenet.edmonton.ab.ca)

Timothy Ellam VE6SH [ve6sh@rac.ca](mailto:ve6sh@rac.ca)

All Canadian amateurs can have a say in the band planning process. If you wish to have an input, please send

your comments and suggestions Bob Nash at [rtnash@netcom.ca](mailto:rtnash@netcom.ca) or contact the committee member nearest to you.

The committee will report to the President through Vice President International Affairs, Ken Pulfer VE3PU.

### **00-005E**

RAC Executive for 2000

The RAC Board of Directors is pleased to announce that effective January 1, 2000, the following people will serve on the RAC Executive for a two year term:

President - Ken Oelke, VE6AFO

First Vice President - vacant

Vice President International Affairs - Ken Pulfer, VE3PU

V/Pres . Government Affairs (Acting) Ken Pulfer, VE3PU

Vice President Regulatory Affairs - Tim Ellam, VE6SH

Vice President Industrial Liaison - Don Rowed, VE3KII

Secretary - Dawn MacKay, VE1MAK

Treasurer - Bill Rothwell, VE3FGW

### **Canadian preparations for WRC 2000 shift into high gear**

The Canadian Preparatory Committee, chaired by Bruce Gracie of Industry Canada in Ottawa, is moving into high gear as Canadians begin final preparations for the next World Radio Conference to be held in Istanbul in May, 2000.

Not only is the committee preparing Canada's wish list for the conference, but it is also coordinating our proposals with the rest of Region 2 through the CITEL committees which bring most of the countries of the Americas and the Caribbean together to look after common interests in our part of the globe.

At the same time, Canadian representatives sit on the CEPT committees preparing European common proposals, and the Asian Preparatory Committee doing the same for many of the countries of the South Pacific and the far East.

By combining forces and preparing common proposals well in advance of the conference, we can have some assurance of the support of a significant percentage of voting delegates when the crunch comes.

But preparing involves a lot more than just putting together the wish list. We must look at the proposals from other countries and other regions, and decide whether or not to support them, or to try to get them changed into proposals that we could support.

Background studies have been underway in Geneva and other locations ever since WRC 97 to provide the hard evidence to back up decisions, but meetings are now reaching a fever pitch as government officials, industry

representatives and others such as Radio Amateurs of Canada and the International Radio Union get together in an almost continuous series of meetings between now and May to sort out differences, reach consensus on thorny issues, and dot "I"s and cross "T" s on the final proposals which will be submitted to the conference in Istanbul.

The role of Amateur radio at Istanbul will be primarily a defensive one. We will be watching to ensure that our interests are protected as the worlds giants fight over an ever more crowded spectrum. Last minute threats can appear at any time, and we must be ready with the right arguments and convincing evidence to arrive at results with which we can live.

One item of special interest at Istanbul, will be the drafting of the preliminary agenda for WRC 2003. There are expected to be at least three items on that agenda of concern to amateurs. They are:

A possible review and updating of the ITU regulations governing the Amateur Service and the Amateur Satellite Service,

A possible review and reallocation of users of the 40 metre band, with the objective of securing a worldwide allocation for Amateur radio of 300 kHz at 7 MHz , which would not be shared with Broadcasting and other services,

And an anticipated request for an allocation to Synthetic Aperture Radar in the middle of our 70 cm band. This latter item had been on the agenda of WRC 2000, but was dropped for ITU budgetary reasons.

Your donations to the DARF fund will help to cover the costs of a an Amateur radio representative on the Canadian delegation at Istanbul. He will not only work with other amateurs in deciding how best to deal with last minute crises at the Conference, but he will also be working behind the scenes within the Canadian delegation to secure the support of our administration when needed.

### **Editor Ramblings** **By Derek, VE4HAY**

It looks like the President is busy again this month. I talked to him a few days before deadline and he said "No problem you'll get an article!" I think he was called out of town again. Oh, well maybe next month. I know he would want to mention the Flea Market coming up, (see notice below) so book your table A.S.A.P. He would also like to remind everyone about Home Brew Night coming up in April.

For my part, I want to mention G.O.T.A. (Guides On The Air) Feb 19 & 20. This is a yearly event that takes place, where Girl Guide groups from around the world get on Amateur Radio and make contact with each other.

GOTA started in Canada in 1985 by Cathy Hrischenko, VE3GJH to celebrate 75 years of Girls Guides. The tradition has continued every year since. If you know of a Girl Guide group in your area, invite them over to your shack to make contact with other groups. Even if you can not find a group, get the YL or XYL to talk to the girls. Frequencies to watch are:

80M - 3.733 & 3.933  
40M - 7.088, 7.033, 7.188, 7.288  
20M - 14.133, 14.188, 14.288  
15M - 21.288, 21.360  
10M - 28.988  
2M - Local repeaters and 146.62

**COME ONE , COME ALL**

### **The Winnipeg Amateur Radio Club Semi - Annual Flea Market**

Sunday April 16th.

Heritage Victoria Community Club  
950 Sturgeon Road  
Between Ness & Silver

Admission is \$1.00  
Doors open at 10:00 a.m.  
For table rentals contact Darcy at  
783-0421 or e-mail at  
[dwilson@netcom.ca](mailto:dwilson@netcom.ca)