



Newscaster

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

November 1999

Manitoba Telephone Systems

FleetNet Radio System

Date: November 8th, 1999
Time: 7:30 p.m.
Place: Sturgeon Creek Regional Secondary School

Other Important Dates:

Articles: Dec 1st. - Article Deadline December Newscaster

WARC: Dec. 13 - Monthly Meeting - Christmas Party

WSC: Nov 18 - Breakfast - Days Inn on McPhillips
Dec 9 - Christmas party
Dec 15th - Annual general meeting - Club Rooms

ARES: Nov 16th - Mary Genyk - MTS Emergency Planning.

Other: Nov 11 - Remembrance Day
Nov 21 - Winter Travellers Display - Fort Whyte Ctr
Dec 25 - Santa brings that new rig
Dec 31-Jan 1st - Y2K public service

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

The Monthly Breakfast will be held on November 18 (one week later than usual due to Remembrance Day falling on a Thursday). Location is the Days Inn on McPhillips St., (just north of the Casino). Starting time is 9 a.m. All are welcome. Last month, 23 attended, and had a jovial time. Put a bigger smile on George's face- come and join us to raise this figure. And, tickets for the Christmas Party will be available.

The monthly Board meeting will be held on November 10th at the Clubrooms, starting at 9:30 a.m. Members and guests are welcome to attend these meetings.

The Annual General Meeting will be held on Wednesday, December 15th at the Clubrooms, starting at 9:30 a.m. Mark this date on your calendar, IT IS IMPORTANT!

And the Christmas Party will take place on Thursday, December 9th. Doors open at 12 noon, dinner will be served at 12:30 p.m. Tickets (\$15.00 each) are available at the Club from any Duty Officer or Executive member. Only 100 are available - get yours while you can! Party goes to 3 p.m., with music, speeches and sing-a-long, and an appearance by that great vocal group, The Intermods. (Wait till you hear them THIS year!)

And the big news is that we have a special door prize - a 1-night stay at Days Inn, good from Sunday thru Thursday (a sleep-over Wednesday night means you'll be right there for the monthly breakfast!). Also, 2 Santa dolls, donated by Gladys, VE4GE, will also be part of the door prizes. More reasons to come.

Regarding last month's news, we neglected to include Dick Higgins, VE4RHG, as one of the members who braved the cold at the Boni-Vital Singalong. Also, Mabel, VE4MPE, is at the Care Home on Molson, not Montrose.

WARC: Executive for 1999-2000			
Past President	Norm Coull	VE4EH	885-1692
President	Darcy Wilson	VE4DDW	783-0421
Vice-Pres./ PR			
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	Susan Keller	VE4SUE	888-9011

It is nice to see the 'Blips 'N' Blurbs' continuing publication - another issue is being prepared now. It will include a power supply diagram, courtesy of VE4AX. Keep those items coming to George, VE4GNG and Albert, VE4APA so the club knows what is going on with its members, as the next issue of the Sparks won't be published until late January or early February in 2000.

Our new QSL Manager for the club is Stan Parry, VE4WE. When you operate at the club station, make sure you maintain the station log for your h.f. contacts; Stan needs that for verification.

The Club voted that we apply for membership in Radio Amateurs of Canada - and we'll then also receive "The Canadian Amateur" at the club; we already have the club affiliated with RAC.

The St. Vital Biz has asked us again to join them in their Christmas program. Our members act as roving 'Santa's Helpers' amongst the children outside, and put them into contact with 'Santa's Elves' at the North Pole (the Clubrooms). During this time, children and parents are invited to visit the Clubrooms. Last year we had about 600 people This event is slated for Sunday, November 21, from 1 p.m. to 5 p.m.

If you want to see the beautiful flowers in the window boxes during the winter months, you'll have to go to the 3rd floor. We have given permission for their storage there.

A member mentioned a new Ham website, run by Bob, VE4ZAP.

URL: < <http://www.radioactivemanitoba.com> >.

On Scouts' Day (J.O.T.A.), Jim Rogan, VE4MT, passed messages to John Brice, VE4LU, via Satellite from the Club's satellite station, which really impressed the Scouts and Cubs present during this exercise. The Board voted a big 'thank you' to John and his gang for all the work they did in getting the satellite station into its fine operating state. 14 members of the Venturers Scout group were present at the Club on Sunday for the Scouts' Jamboree On The Air, of which 12 were licensed Amateurs. Many contacts were made on a number of bands, and a couple of 'die-hards', trying for a LU DX contact, didn't want to leave at the 5 p.m. closing

Upcoming projects are being looked at by the Board, which include a new h.f. antenna, also a repeater situated at the Club.

Paul Champagne, VE4OPC is the man in charge of Nominations for the new Board to be elected at the December Annual Meeting. If you would like to become a Board member (including the Executive), or have someone in mind that you would like to see help run the Club, see Paul now and let him know. One position that will need filling is that of Secretary - any takers? Also, Sandy, VE4SZ will be resigning as Head of Education Committee at end of year.

It was noted that Dave McKay, VE4APO, who has moved to Keewatin, ON wishes to remain a member of WSCRC. This was approved.

Lila, VE4LIL gave her report that cards had been sent to the following members: to George Forsyth, VE4GJF, who has suffered a stroke; to Bill Davis, VE4WU, who had spent a few days in hospital due to flu complications; and to Ray Hawkins, VE4RAY, on the loss of his wife Alice, on September 26, 1999.

Two interesting things happened at the last Board meeting: George, VE4GNG showed Albert Diamond, VE4AX, an old report card from a school that George attended as a wee lad. All subjects had good marks, the best being spelling at 91% - and the report card was signed by Albert, the teacher! And Ed, VE4YU, showed the members a 'Seniors Award' certificate that was presented to George Reynolds, VE4AJ during the official opening of VE4WSC at the old Nurses' Residence (Municipal Hospitals) on June 28, 1984. George was 79 at the time. This certificate will be available for viewing on the VE4WSC internet homepage soon.

And guess who won BOTH clock and spice awards (a first time) - George, VE4GNG. When Prez Bob announced that George was the winner of the 'Broken Clock' award,

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 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>

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Comments or if you just want to reach us :

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<http://www.freenet.mb.ca/amradio>

George protested that it should go to Gil, VE4AG. Because he continued to argue about Bob's choice ("I'll touch it and then give it to Gil"), he was awarded the 'Lea & Perrins' award as well, for adding 'spice' to the meeting. Incidentally, the Club has a new broken clock trophy- courtesy of Adam, VE4SN - an actual alarm clock, to take the place of the wristwatch that was the original 'clock'.

And, in closing, be reminded that the fiscal year is closing, and if you haven't made your annual donation to the club yet, now is the time to do it. Thanks to those who have. 73.

MINUTES for W.A.R.C. October. 18th, 1999 **Submitted by Ruth, VE4XYL**

PRESIDENTS WELCOME

Thanked everyone for the excellent turn out of 66 members. Introductions of all attending followed.

MINUTES.

be accepted as printed in the newscaster
Moved Dick VE4HK, Seconded by Jeff VE4MBQ
Carried

TREASURERS REPORT:

Norm VE4EH reported the bank balance as of the end of Sept. 1999 is \$3660.92. October expenses will be a little high having paid the annual school rental of \$550.00, Heritage Victoria C.C. \$75.00 as well as the printing costs for the newscaster etc.. With membership renewals this will bring up the bank balance.

PROGRAM:

Today's program will be by Barry Malanchuk VE4MA on the Y2K Manitoba Hydro preparedness. The November 8th program will be from MTS on Fleetnet as it served during the Pan Am Games and December 13th is our Christmas party.

MEMBERSHIP:

Mariska VE4MMG reported as of October 18th 1999 there were 159 renewals. The break down was 147 regular members (8 of which are new) 9 clubs, 2 life and 1 associate.. Also the WARC/ ARES Y2K 50/50 draw held Sept 27, 1999 was, \$74.00 tickets sold, \$37.00 was won by Cal VE4XQ and WARC & ARES split \$18.50.

RAC REPORT:

Rick VE4OV talked on the I.C. release of RP-021, issue 1 entitled Guide lines of the licensing process and spectrum release plans. Rick described how I.C. policy will affect the radio spectrum management and emphasized that Amateur radio frequencies are not immune from this spectrum policy.

On October 22 1999 the Canadian Amateur Advisory board will meet in Ottawa with I.C. They meet twice a year to discuss and resolve mutual issues. On the fall agenda there are 13 items to be discussed such as call signs, exams for the disabled, new question banks, antenna support structure zoning to name a few.

WARES:

Jeff VE4MBQ commented on the excellent turn out for the Y2K meeting but many who attended did not volunteer. Although the Y2K may well be a non event the public safety agencies must plan for contingencies regardless of public opinion. ARES has been requested for at least 8 specific projects in Manitoba. Wayne VE4WR reported that in rural Manitoba they already have 35 out of 45 volunteers needed.

FLEA MARKET

Darcy VE4DDW said the tables are not selling too well and encouraged members to advertise or alternate decisions may have to be made for future Flea Markets.

ATTENDANCE SHEET SIGN UP

This is only for the interest of the executive. It gives us a good idea about membership attendance should we need to prepare hand outs or with coffee and treats. Please sign up when it comes around. Thank you.

DX SLEUTHS:

Adam VE4XN wondered who would be the first DXCC on 10 meters now that anyone who has basic plus 5wpm is allowed to operate in that band. He also reported the bands were sporadic but if one listened you can still grab some good countries.

NEW BUSINESS:

Darcy VE4DDW is asking for anyone interested in teaching the Basic Amateur Radio course in the evenings. At present the WSC is teaching the course during the day only.

The executive has agreed to purchase a G5RV HF antenna for the club at a cost of about \$60.00 from Comtelco Electronics.

CONGRATULATIONS

Ruthie VE4CRS for having received her Worked All Winnipeg award, presented by Dick VE4HK.

Meeting adjourned at 20:20hrs and our next meeting will be Monday November 8th at 19:30hrs.

Emergency Survival

By Kay, VE4YF

When you put together a mobile radio kit, why not put safety first and add some of the following items to make a winter survival kit. It isn't too expensive and doesn't take up much room. Some of the items listed below are meant for serious hikers to take with them, but one adaptation that the Fort Whyte Centre instructor taught during the course I took was to put together a basic kit that has only the essentials to keep in your car trunk all winter. Plan carefully and it can all fit into a coffee can!

SURVIVAL KIT

KNIFE, preparing food, cutting branches for fires, many other uses
 COFFEE CAN, waterproof storage of items, cooking pot, water carrier
 TARP, ground sheets, shelters
 FISHING HOOK AND LINE, could even be used in winter, if you have a hatchet to cut through the ice
 SNARE WIRE, trap small game for food, tie the shelter together
 MATCHES AND STRIKER, waterproof matches can be made by dipping strike-anywhere matches in wax
 FIRE STARTER, use egg-carton fire-starters; milk cartons are also highly flammable and lightweight
 CANDLES, light and warmth (especially in quinzhees), fire starting
 ROPE, tying shelter supports, many other uses; include at least 7m. of light, strong cord
 SURVEYOR TAPE, trail marking for rescuers or so that you do not get lost again, may be used for tying clothes or shelter
 DUCT TAPE, repair of clothing, shelters, first aid
 TIN FOIL, wrapping food for fire, homemade pots
 SPACE BLANKET, warm and portable bedding (reflects body heat back to you)
 GARBAGE BAG(S), waterproofing for yourself, for shelter roof and floor, to carry fuel, etc..
 SIGNAL MIRROR, signal airplanes or distant rescuers, check yourself for frostbite
 WHISTLE, loud signal that requires less energy than shouting [recommend pealess whistle]
 FIRST AID KIT, do not forget any special medical needs you may have (inhalers, insulin, etc..)
 CLOTH (J-CLOTH), sling, repair of clothing, signal flag
 HATCHET, may be used for cutting firewood, building shelters, ice fishing, or digging out the car

MAP AND COMPASS, direction finding
 SURVIVAL GUIDE, many good pocket-sized books available; also guides for edible plants
 PAPER & PENCIL, journal, messages to rescuers
 HIGH ENERGY FOOD, raisins, chocolate, nuts, gorp, tea bag, soup mix; rich with sugar and other carbohydrates; tea provides flavour for water and mild stimulation
 EXTRA CLOTHING, mitts, woolen underwear, hat; maybe some lightweight rain gear
 FLASHLIGHT, good for setting up camp at night, but batteries drain quickly in cold weather
 TISSUES (TOILET PAPER), personal comfort, fire starter
 MONEY, for phone calls or gas; you may not be totally isolated if you become lost

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Additional suggested articles to include in a car kit [as taken from Fort Whyte Centre, Branta Winter '97 Magazine - volume 15 #3 by Karen Lange-Jewison] are:

- ☛ BOOSTER CABLES
- ☛ LARGE BLANKET - wool or polar fleece for warmth
- ☛ 10 cm SAFETY CANDLES
- ☛ TIN CAN OR METAL CUP WITH HANDLE - for melting snow to drink or housing candle
- ☛ MITTS, SCARF, HAT AND EXTRA WARM CLOTHING
- ☛ SHOVEL
- ☛ FOOD - emergency supplies such as nutrition bars, chocolate bars, dried fruit, nuts, trail mix, or beef jerky
- ☛ SMALL CARPET SAMPLE - should be at least 45 cm X 45 cm to aid vehicle traction if vehicle is snowbound
- ☛ CARBON MONOXIDE INDICATOR CARD

A Winter Travellers' Display will be set up on November 21st at Fort Whyte Centre - call them for details.

Contest Calendar

November

- 6-8 [ARRL November Sweepstakes, CW](#)
 20-22 [ARRL November Sweepstakes, phone](#)

December

- 3-5 [ARRL 160-Meter Contest](#)
 11-12 [ARRL 10-Meter Contest](#)

Winnipeg ARES Report

by Jeff, VE4MBQ - Winnipeg EC

ARES Y2K plans are progressing well. In Winnipeg we still need 10 amateurs for the ARES-WFD project, 2200h 31DEC to 0600h 01JAN. The Fire Dept. says that they will probably send us home at 0200h if all is well. If you are able to volunteer please contact Jeff at 694-8146, e-mail: or contact on VE4WPG.

For the 35 amateurs involved with the ARES-WFD project we have a meeting for all volunteers TUE 23NOV 1900h Fire Station #1 Ellen at Notre Dame. Our October monthly meeting featured Larry Gwiazda from Manitoba Health Disaster Services. Larry's presentation was most timely and contributed greatly to our understanding of the importance placed on amateur radio by the civil authorities for emergency communications, not just Y2K. We had a very successful table at the WARC Flea Market, thanks to Mariska VE4MMG and Dick VE4HK for organizing the silent auction; thanks to Bert VE4AND, Dick VE4HK, and Jeff VE4MBQ for manning the table. Great thanks to our supporters who participated by buying silent auction tickets or contributing prizes. The 6 lots were:

1 Mita Workbench donated by Mariska VE4MMG and Dick VE4HK

Won by Keith Lindstrom VE4FR

2 Copper J-Pole donated by Arne VE4ARN

Won by Eric Askew VE4ASK

3 Massage Therapy Certificate donated by Robert VE4RST

Won by Ken Fry VE4KEF

4 \$50 Safeway Gift Certificate donated by Canada Safeway

Won by Yves Remillard VE4DY

5 Sports Package donated by Astra Credit Union, Cal VE4XQ, and anonymous

Won by Brian Ward VE4RBL

6 Baking Package donated by Barbara Maguire

Won by Wayne Schellekens VE4WTS

Mariska Maguire VE4MMG and Norm Coull VE4EH attended "Managing Emergency Telecommunications" 24-29OCT99 at the Canadian Emergency Preparedness College in Arnprior, Ontario. We now have 6 members who have had the opportunity to attend this program over the past few years. The next monthly Winnipeg ARES meeting is TUE 16NOV 1900h at Sir Wm Stephenson Library 765 Keewatin Street - guest speaker is Mary Genyk from MTS Emergency Planning.

Hints & Kinks

de Ralph, VE4RY

When setting up VHF/UHF antennas at deep fringe locations such as at the summer cottage, there may be an effective alternative to putting up a 100-foot "lightning rod" tower.

Although you try mounting the antenna as high as possible, the signal may still remain extremely weak. Your transmission line loss is a consideration, but the problem is likely that no matter how high you go, there's likely at least one railway track line or small mountain that's even higher between you and the transmitter site, thus making "line-of-sight" communications impractical.

But, all is not lost! You may be able to take advantage of a phenomenon known as "knife-edge refraction", where radio and light waves have a tendency to bend as they travel over a sharp edge.

Just for the heck of it, try mounting the antenna just a few feet off the ground, say on the edge of the deck, or on the roof edge. On several occasions, I've found that there seems to be an enhanced signal close to the ground; stronger than at 25 feet up, and this was using the same piece of coax. You get even more improvement when you shorten the feedline.

I've used this trick several times and was quite surprised that the theory that says "the higher the better" does not always apply. I was able to make a marginal 2M repeater and a cell site useable, and to make a TV more watchable "out in the boonies", by lowering, not raising the antenna.

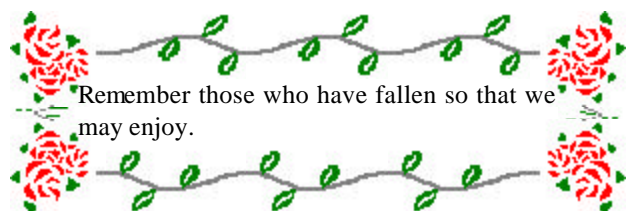
[An interesting observation: vertically polarized waves remain perpendicular to the ground, so if you're on a steep slope, for maximum signal, tilt the antenna accordingly.]

RAC Bulletins

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

No bulletins of great importance this month other than the on air events that have passed already.

Switching Power Supplies



By August Hoecker, W8MIA

Submitted by Chris Setla

OVERVIEW

If you are an amateur radio operator, Short Wave Listener (SWL) or involved in any number of other areas of communications, sooner or later you will have a need for a high current, well-regulated 12 to 15 volt DC power supply. It may be that you have removed your all band, 100-watt "Super Band Banger" rig from the car for the winter and need a power source to handle that transmit load. Or perhaps you have your station all setup with emergency battery backup and require a much shorter recharge cycle to get your batteries ready for the next black out. Whatever your reason, if you have a use for such a supply ranging in output current from 25 to over 40 amps this idea may be the one for you. If you have priced such a supply, you will find the cost is in the range \$200 to \$300 (US\$). Discussed here will be a way to cut that cost by a factor of 10!

HOW DO WE GET THERE?

Developing a power supply providing 15 VDC or less, at the currents discussed is more of a search and find mission than it is a high tech one. If you are one of the newer members of our amateur radio family or new to needing a high current power or charging system, this relatively straight forward project should not stretch your technical skills and more importantly it will not stretch your budget either! The task at hand is to look through your "junk box" or visit your local "Radio Goodies" store or perhaps better yet, a computer store that sells old equipment and used parts. You will be looking for used but working Personal Computer power supplies. The ones I found were purchased at a "Good Will" store, still mounted in three scrapped out "AT Chassis" for \$5 (US\$) each—

In this case I not only obtained the three wanted supplies, that were all alike but I also acquired the cases, power switches, AC power cords, etc.. The cost was low enough to allow the purchase of two additional units to keep as spares or for other service. You can also use the old PC cabinet for mounting multiple supplies if you desire.

ABOUT COMPUTER POWER SUPPLIES

It may be worth a few minutes of your time, for those of you who may not have had any exposure to a typical PC power supply, to grasp a general understanding of their inner workings without us going into any great detail. The power supplies I am discussing are enclosed in a metal case about 5 x 6 x 7 inches (13 x 15 x 18 cm) containing their own cooling fan, circuit breaker, power switch (case mounted or on short wire leads to the case) and a standard computer 3 pin IEC power connector. The power ratings of these supplies vary greatly from as low as 135 watts to over 300

watts. This wattage rating expresses the total power output of the supply. You will be searching for supplies no smaller than 200 watts with bigger being better with only one caveat discussed a bit later.

The PC power supplies described will normally provide four output voltages which are + 12 VDC, -12 VDC, +5 VDC and -5 VDC. The two minus voltages are usually rated at about 1 amp or less each and are of no practical value for our use here and you may just disregard them. The plus 12 VDC will have an output current rating of anywhere from 7 to 14 amps DC. The 5 VDC output rating will range between 20 and 40 amps depending on the output wattage rating of the supply.

The units used for my supply were manufactured in Taiwan by "KPI ", with a power output rating of 250 watts which turns out to be a very conservative rating for this particular supply. The +12 VDC is rated at 10 amps with the + 5 VDC rating at 25 amps! These two power outputs loaded to their full rating will add up to an output power availability of 245 watts, very near its posted rating. As shown, we have +5 VDC and +12 VDC and several options and a few restrictions for their use in assembling this new supply to suit our needs.

One important point with reference to these computer power supplies is that they are "switching" power supplies not the more conventional "linear" type supplies so many of us may be more familiar with. There are several distinct advantages of switching supplies over the older linear types. Mainly they are more efficient and run cooler. However, there are also a few things to be cautious about or have knowledge of when using these supplies. The first item comes under the CAUTION flag. Switching power supplies take the AC line voltage (100 to 240 VAC, sometimes requiring a jumper to be removed for the higher line voltages) rectify it and charge high value capacitors to a high voltage in the range of 250 to 400 VDC. These high primary voltages do present a dangerous lethal shock hazard and caution must be used if you decide to remove the protective cover over the supply and poke around inside. If you do decide to do so always discharge the large high voltage capacitors within. Always!!

One disadvantage of switching type supplies, in particular the older units, is their requirement for a minimum load on their output terminals. This will be in the range of 2 to 4 amps on the +5 volt output and from 0 to 2 amps on the 12 volt output. Many supplies require this minimum load on the +5 volts only. This may present a problem depending on the type of service you intend to place your supply into. One quick, simple fix is to place a 1 or 2 ohm, 25-watt load resistor across the +5 volt output. Although you are wasting from 12.5 to 25 watts of power, this will settle the supply down and allow it to provide a stable, well regulated output on both the +5 and +12 volt outputs. This is also a good technique to use when first testing your new supplies. An additional load resistor may be necessary on the +12 volt output, if so required, depending on the supply in question. This is the caveat mentioned earlier, but will usually not

present a big problem. The two GE receivers in my rack draw enough power alone, on the 12-volt bus, to provide this load. I felt however it was necessary that you be made aware of this factor when dealing with switchers. Without this load present at "power on" the output voltages will not come up.

PUTTING THE SUPPLY TO WORK

At this point you have three options for the use of the supply outputs. First, if your load is at or less than the 12

volt maximum rating you may connect your equipment to the black and yellow leads supplying the voltage to the four pin Molex-type connectors coming from the supply. For higher power equipment, parallel several or all of the black leads together and do the same with the yellow leads to minimize your voltage drops. Connect your load to these new junctions. All wires of the same color are the same voltage. All black wires are common ground or reference point for all voltages. More on this "ground" connection a bit later. There is a long cable coming from the supply containing about twelve wires. This cable formally connected to the motherboard in the PC. This may be used as a source of your power. The color codes remain the same.

Your second means of utilizing this low cost power is to connect the +5 VDC outputs of three separate supplies together in series. This will provide you with +15 VDC at 25 amps on up to the maximum rating of the supplies you have acquired. If this +15 volts is beyond the working voltage range of your equipment, once again you have two options. One simple solution is to place one or two 50 amp stud diodes, with a heat sink, in series with the +15 VDC output. This will reduce the output voltage to 14.3 or 13.6 VDC respectively. It will also provide isolation between the supplies and any standby batteries you may have in your system. 13.6 to 13.8 VDC is also an excellent float charge voltage to keep your sealed lead acid batteries well charged without overcharging. An alternate to the added diode method is to remove the covers on the three supplies and look for the +5 V voltage adjustment. Most all computer supplies provide at least a +5 VDC adjustment. Many provide a +12 VDC adjustment as well. Once again "Use Caution" when you have the supply uncovered. In particular while AC primary power is applied. Locate the +5 VDC adjustment pot and set each supply output to from 4 to 4.5 volts which will provide a combined output between 12 and 13.5 VDC or as required for your needs.

Your last option is to use both the first and second choices above. Except for the common ground connections (black leads) each of the supply voltages are independent and isolated from each other. As an example, I power my two GE Master transmitters using the high current series

connected 5 volt supplies. I power each receiver independently with the 12 volt outputs of two of the supplies and use the third 12 volt output for other monitor and scanning receivers with lots of 12 volt power to spare.

A few closing thoughts: Although there may be a few variations by certain manufacturers, the standard color coding of these PC power supplies is as follows: (See L-1)

Table L-1

COLOR	VOLTAGE	COMMENTS
RED	+5 VDC	All red wires common to each other
YELLOW	+12 VDC	All yellow wires common to each other
WHITE	-5 VDC	Not Used
BLUE	-12 VDC	Not Used
BLACK	Common Grd.	All black wired common to each other
ORANGE	+5v Signal Wire*	Power Good Lead, connect to +5 VDC

*Note: Most PC Power Supplies have an ORANGE wire that provides the "Power Good" signal back to the supply. Tie this wire to the +5 VDC leads. Not all supplies have this feature, however, the supply will provide no output voltages without seeing a positive going 5 v signal on this line.

Switching power supplies have several unique properties. Among these is their ability to "Power Share" between supplies. This means that although the +5 volts may be rated at 25 amps, it will be capable of supplying a larger output current that if the +12 volt supply is lightly loaded. You cannot push things too far due to the limits of the power components within the supply. There is a fair amount of leeway in most supplies however.

If a switching supply is overloaded or short-circuited, it will shut down. Its out voltage will drop to zero. Do not attempt to improve the filtering of the output power by adding an additional, large filter capacitor across the output. When the supply first begins to come up it will see that large cap as a short circuit and shut the supply down. Adding an additional capacitor will not only create a problem you will find it is not necessary!

It is suggested, if you are using more than one supply, (the three in series for example) connect all primary main power input circuits together so they are all powered on at the same time. Also, although the switching power supplies suggested here are quite efficient while operating they will draw a large surge for the first several cycles of primary power after you turn on the AC power. Be sure your AC main supplying the primary power is not overloaded with other heavy current equipment. After they are switched on however, the three supplies in series will draw about 1100 watts maximum under full load.

One last caution. Many power supplies connect all of the "black" wires, DC common, to earth (3rd wire ground). If this is so with the supplies you have on hand, you must

open up the supply and cut the trace or traces that tie this DC common point to ground so the outputs are all floating. This will ONLY have to be done to the second and third supplies. The first supply will have its Black DC Common lead connected to ground in most installations and need not be touched.

If you have considered simply connecting the three 12 VDC outputs together in parallel you must diode isolate the positive lead in each supply before connecting them together. Although this will work fine and provide higher output currents, the output voltage will drop to 11.3 VDC. This can be reduced somewhat through the use of barrier diodes, but the output will now be approximately 11.6 volts. If the +12 VDC is adjustable in your supplies this will not present a problem simply readjust the pot to compensate for the series diode voltage drop.

As an alternative to using standard PC power supplies there are many open frame, high current, +5 and +12 VDC supplies available at very reasonable prices on the used and surplus market. In fact there are several listed now in the antenneX Classified Clearing House (CCH) listing under power supplies. Remember please "USE CAUTION" when you have your fingers inside these switching supplies. Although their output voltages are very tame there is a "Tiger in The Cage with Lethal Teeth"!

CALL SIGN " What's That? "

WARC membership draw

The winner will be announced at the November meeting. Make sure you attend. You could be the big winner of a :

Kenwood 261A 2 mtr. transceiver

donated by

Comtelco Electronics

1456 Logan Ave.

and Kenwood Electronics

Canada.

Please visit the shop and thank them for the donation.

By VE4EPC.

Some time ago I submitted an article to the Newscaster on the topic of Station Identification and the article was recently reprinted. I have heard some response to the article and have noticed that the proper use of call signs has improved.

However (You new there was going to be a "However" didn't You.) I have noted several methods of making ones presence on the Air without the use of a call sign. (Assuming of course these are Licensed Amateurs.)

Most of these occurrences are happening on Repeater operations and usually occur when two parties are in conversation when a third or even a forth party decides they have to offer a comment to the on going conversation without identifying there station even if the party was asked or not asked to make a comment.

Here is a short list of the new call signs I have observed, maybe you have as well.

- * Hello
- * Are you talking about me?
- * Cough Cough
- * No Prefix on Call sign
- * A comment to the conversation
- * Hey -followed by a first Name.
- * Total garble as two or three individuals key up to make a comment at the same time
- * Beep.. Followed by a link coming up or down.
- * Total Silence (Always following a Kerchunk)

This is just a few of the calls you and I have heard and none of them include the use of their FULL Call Sign which we all know that we as Licensed Amateurs have to abide to.

If it sounds like I am unhappy with the current situation in the Ham Community as to the lack of Common Courtesy with some individuals you are correct.

Please consider this -As a Licensed Amateur Radio Operator you have a direct influence on All new Hams coming on stream and if You Allow the people that you talk to continue to make their own Rules and Regulations then you might as ell consider yourself no better than those individuals.

When I first became a licensed Amateur. An Amateur whom is active on the 2m band told me. " You know Eric, this is a great hobby and you will meet nice people and some not so nice people and we as Amateurs will have to Police our bands ourselves if we don't want it to go All to Hell. Unfortunately this individual is not following that advise.

You may say what is this Guys problem, after all this is just a hobby and we are supposed to enjoy ourselves. I like to compare having a drivers license and an amateur license much the same as both are acquired to follow set rules and regulations and are based on Common Courtesy. If you feel you have the right to speed, fail to signal, cut off other motorists or hog the roadways there are officials to police your activities. Who is policing Our Amateur Roadways?

As a final note I have successfully written and passed the Qualifications to be a Licensed Amateur Operator and have had no difficulty in maintaining those Simple Qualifications.

Usenet Newsgroup Extraction

Davco wrote in message

>Hello, can someone give me an electronic explanation of what squelch does?

Squelch is a method of turning off the audio output of a receiver when no signal is present. It is mainly used for FM reception as the output of an FM detector is extremely noisy without a carrier present. In FM receivers, the squelch normally works off both the signal strength (limiter current, AGC, RSSI, etc..) and the decrease in wideband noise output when a signal appears.

In AM or SSB, a squelch is less useful unless you always have strong signals. Here the squelch works off the signal strength only. -- Barry L. Ornitz, WA4VZQ

Silent Key

George A Giesbrecht, VE4DT,

George A Giesbrecht, VE4DT, suddenly passed away on October 6TH 1999 at the age of 76. He was very active in amateur radio as the net manager for the Manitoba Morning Weather Net on 3743 KHz, as well as a regular on the many other nets in the area. His voice was often heard on the bands relaying in those distant stations most of us couldn't quite hear or copy. His station was well known in Western/Central provinces for one of the best signals out of Manitoba on 75 meters. On the 2 meter band, George was often heard on the Winkler repeater as well as on packet radio. He was usually around to chat with when driving through the Pembina Valley area. His courteous, warm, and friendly manner on the radio will be missed by all who knew him.

RADIOGRAM FROM THE PRESIDENT:

by Darcy, VE4DDW

No article submitted - The President was in Ottawa

PRINTED CIRCUITS OF COPPER BEGIN Germain Chambost Science & Vie, Dec. 1997

Translated by Vernon Dutton, VE4VQ

This article is headed by a tricky bit of contemporary illustration work – a printed-circuit apparently sitting on a penny. The clip accompanying this "photograph" states "Microprocessors of copper are beating all the records for miniaturization (below is shown a printed-circuit of 0.4Fm enlarged 100 000 times)."

Copper is deposited in a thin layer on a support of silicon in order to fabricate electronic components; researchers at IBM have succeeded in replacing the aluminium which, until now, has been the only electrical conductor used for printed-circuits.

Technically, the aluminium gave satisfaction. However, its performance has reached its peak which has put a brake on the miniaturization of transistors. Today, these are a quarter of a micrometer wide (0.25Fm, or 0.25 millionths of a metre). On these transistors, the size of the aluminium paths is sufficient to guide the electrical signals. But, tomorrow, it will be necessary

to reduce even further the fineness of the printing for which the electrical properties of the aluminium will be ill-suited.

In review, copper, being a better conductor, opens interesting perspectives. IBM affirms that, for identical sizes in the two metals, copper increases the performance of the printed-circuit by from 30 to 40%. Thus, using copper reduces the consumption of electricity in portable apparatus such as telephones and similar items. Finally, it is cheaper than aluminium; IBM estimates that the price of such printed-circuits could be reduced by at least 20%.

At Intel, the world's leading manufacturer of components, they try to minimize the impact of IBM's announcement by pointing out that the customer will not soon find these new printed-circuits in the microcomputers available to the mass market. But Intel, like its competitor AMD, is also working on its own copper printed-circuit ... The two companies hope to see their research successfully terminated in a few months – in a year at most.

Practice makes perfect.

By VE4EPC

The following is a question and requires an answer in the quickest possible time.

Have someone read this to you while you sit with pen and paper in hand and note that the dashes are a break between each word.

India foxtrot- yankee oscar uniform-whiskey hotel echo romeo echo-tango oscar-lima echo alpha romeo november-hotel oscar whisky-tango oscar-sierra papa echo lima lima-india november-tango hotel India sierra-foxtrot alpha sierra hotel India oscar november-whiskey hotel alfa tango-india sierra-india tango-yankee oscar uniform-whiskey oscar uniform lima delta-hotel alfa victor echo-lima echo alfa romeo november 'delta ?

Tango hotel echo- alfa November ? P_____S.

Editor Ramblings
By Derek, VE4HAY

Thanks to those who have submitted articles this month. Unfortunately I have not been able to print them all. Thank you for this, as now I do not have to beg.

I have a very nice article on vertical HF antennas which is copyright, and I am trying to get permission to reprint it. So if you are looking to purchase a vertical, maybe you might want to hold off until I get this printed. I found the article when doing research on verticals, since I am in the market for one anyway. And with winter fast approaching, the time to install is also coming. Who knows maybe Santa wil bring one, or maybe I will arrange a group buy. And who said a Scottish ham was never frugal. (pronounced cheap....) Send articles etc. to ve4hay@rac.ca

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Cushcraft ARX-2B - 2M high gain omni directional base aerial \$95.00

Pyramid PS-21KX -20 amp. 12VDC power supply \$129.00

MFJ-1724B - 2M/440 magnetic mount mobile aerial \$29.00

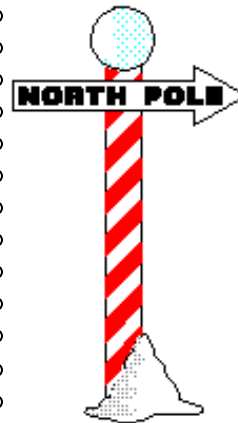
MFJ-1778 - G5RV all band 10-80M base antenna \$59.00

MFJ 949E - 300 watt tuner . \$219

MFJ 1702C - 2 position Co-ax Switch ... 38.00

MFJ 812B - 2 Metre SWR Power Meter ..\$55.00

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