

Newscaster

The Official Publication of the Winnipeg Amateur Radio Club
The Manitoba Repeater Society
The Winnipeg Seniors Club

mailing address

W.A.R.C.
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March 1993

How to be Radio Active in Orbit

by

VE4AMU & Others

Date: March 8, 1993

Time: 7:30 PM

Place: Sturgeon Creek Regional Secondary School

Other Important Dates:

WARC: April 3 WAWA

April 12 Monthly Meeting (Home Brew Night)

MRS: April 16 Annual General Meeting (proposed)

WSC: March 16 Meeting

Warc: Executive for 1992/93

President: Dave Panting - VE4EF

Vice-Pres: Alex McIlraith - VE4AIM

Secretary: Kay Quin - VE4YF

Ross Hutchins - VE4LDS

Treasurer: Bill Panting - VE4KX

Past Pres: Judy Norton - VE4JBN

Members

@ Large: Scott Marshall - VE4WSM

Pat Giesbrecht - VE4PLG

Jim Ross - VE4AJR

Albert Sousa - VE4LS

Notes from your Editor: by Derek Hay, ve4HAY

Well I opened my big mouth again, and decided to put something back into the Club for all it has given me. Being as I am fairly new to the club and Amateur radio, we are in for a bumpy road. I have volunteered to be the new newsletter EDITOR. Notice the large type there. I would really like to be an editor, not the person who has to write the newsletter each month. I am looking for articles from YOU the club member. Any article at all, will do. Perhaps you have had an extraordinary event happen to you one day while searching the bands, or you made that once in a life time contact. Or maybe you are specializing in a certain area of the hobby that not to many others have ventured. I want to get your word out. I know that a lot of you have computers, or at least pen and paper. Please write down you articles and send them to me, any way you can. (preferably by electronic means, but send them).

I would love nothing more than to have a years supply of stuff and have to worry about when to put it into the Newscaster. I am good in the blue book, or you can email t o me either on Muddy Waters Computer Society BBS, Derek Hay)on the Internet (dwjhay@muug.mb.ca) or even on packet (VE4HAY@VE4KV.#wpg.mb.ca.noam)

Words from the President of WARC: by Dave Panting, ve4EF

I have just re-read my February message to you and have realized that I am still shovelling snow because the City decided that the ice that was inoffensively lying on my front street would look better on my front yard. Also, it's hard to tell if the great antennae that you put up in January are working because the HF bands have been "gorfed".

I enjoyed seeing you all at last month's meeting and I particularly welcomed the opportunity to discuss the

various topics. You will remember that CC notified the WARC at the end of January about a proposed license fee increase for 1993 and that they made mention of a consultative process involving public input. In mid-February I received my license renewal application which included a \$1 fee increase. While this isn't a big increase I am left wondering about the consultative process. Did I miss something? Did anyone get "consulted"?

Our presentation at the March 8th meeting will be on amateur radio satellites (or HOW TO BE RADIOACTIVE IN ORBIT), provided by Rick VE4AMU and associates. I look forward to getting together with all of you then.

Winnipeg Senior Citizen's Radio Club. by Bill Davis, VE4WU President.

A reminder to all members that the executive and first quarterly general membership meeting for 1993 will be held Tuesday, March 16, 1993 at 10:00 am in the club's Rooms.

Also don't forget the breakfast Thursday March 11, 1993 at the Norlander Inn on Pembina Highway from 9:00 to 11:00 am.

Here is your chance to get in on the free draw from the club's retired 1992 Call Books. Members enter your name and call sign on the list posted at the club. However if you are unable to get down to the club, phone in your name and call sign. Draw to be held March 16, 1993

Manitoba Repeater Society. by Derek Hay, ve4HAY

As you are looking out your window, trying to find that first blade of grass, and wishing that maybe you shouldn't have put up that antenna in January, and waited for warmer weather, you can be assured that your executive is working hard on the new controllers. In fact at our last executive meeting, we even had the chance to hear it on the air. We still have a lot of configuring to do, and planning of the various codes that are required to run the system. We even have a couple of different ways that we can set this up. All of these are being weighed and when it is up and running, I'm sure you will be pleased with it.

There will be some new codes to learn, as well as different ways of doing things on the link system. In fact the word link is not right. This new system will be a TRUNK system, similar to how your home telephone works. You access the system and dial the controller node that you want. You can even go outside of your local area code (hub) and access other areas (other hubs) once

connected to these hubs you then dial the node that you want from there. To shut down is even simpler, you just enter a site normal code, and all returns to it's normal state.

REPEATERS:

ve4MAN - As soon as the weather is warm enough we will be taking the repeater off the air. We will then rebuild it's enclosure to make room for the new controller and it's various radio's. We hope that this will take no longer than 2 weeks, but if we run into trouble a little longer. However when it is back up again, you will be very pleased as this will be the main hub of the entire system.

ve4BMR - There are plans in the works to have this repeater moved to a new site in the park. Which will allow for greater access to the repeater hardware it self. This way if something goes wrong it can be corrected quicker. Plans are also under way to allow the Dauphin Amateur Radio Group to maintain the repeater while MRS still holds the licence on it. This arrangement will make for much better relationship amongst the two groups, and will serve the user better.

ve4NEP - We realize that we have a problem here, and when the controller comes for this repeater, it will be completely replaced.

New radios, antennas, controller and repeater will be installed. The only thing that will remain there is the heliax and the duplexers. This should greatly improve it's coverage, and reliability.

ve4VJ - This site will be a closed site. It will be used as an intermediate link from ve4man to ve4mil. We are planning to install a UHF repeater in Winnipeg someday. (as soon as funds can be raised for it.

ve4PLP - This site will be re-established as an intermediate link from ve4man to ve4nep. This will be a closed site.

ve4WRS - No changes.

ve4WPG - Currently no plans for change, other than installing a beam back to the hub site. This site is currently working just fine.

ve4CDN - This site was brought back on line this past summer and has been working fine. No negative reports so far. The link to the hub will come as soon as ve4man is re-installed. We are looking forward to hearing from ham's in Southern Manitoba again.

ve4GIM - We have various plans for this site. First it will get a new set of radios (both VHF & UHF). This site will also link to the new hub at Milner Ridge. We also

have plans to re-orient the VHF antenna to better favour the land instead of the lake, as well as the North. (which is lacking coverage). This will effect the South a bit, but someone has to loose. Also the South may be a little weaker, but does still have coverage from Winnipeg, and Selkirk, Lundar etc....

ve4EMB - This repeater got a tune up last summer and has been performing very well since then. Currently we only have long range plans to bring this repeater into the trunk system. There are however plans to hot link it with a private repeater, to be installed in Woodridge directly South of EMB close to the border.

ve4MIL - This will be a new site, and will be our third HUB. It will also have a VHF repeater on it. Coverage is not known at this time, but it is expected to compliment the repeaters that already exists in Eastern Manitoba. This hub will have a link to Gimli and a trunk line to VE4FAL. Future links or trunks will be to VE4PIN, and VE4EMB.

OTHER CLUBS:

As some people probably know, we now have access to the Lundar repeater and it's hot-link to other repeaters. We have now been given permission to release the codes for these repeaters to our members. To access this system enter 497* to turn it on and 497# to turn off. We have asked their group to provide us with a map of their system including repeater frequencies and off-sets. This should be coming very shortly and will be published in the Newscaster.

FUTURE:

Long term plans are slowly coming along. These include province wide access (at least Southern Manitoba, with select areas in the North). Access to VE5 land, access to the states, access to IPARN.

We are also looking at installing a UHF repeater, because of all the dual band radios out there now. We have been asked about the possibility of a PACKET repeater. This is being given some thought as well. Once the new system is in place and functioning properly, we can then start making better plans. We will also have a better grasp of what equipment is required and what we currently have.

Your executive has been having regular meetings all fall and winter long. The Technical committee is having a very busy Winter and Spring. They are in need of a set of VHF duplexers to do testing with however. As well as

some UHF and VHF dummy loads. If any one can help us out here, please give ve4acx or ve4teg a call.

I at this time would like to thank all the members who sent in their membership re-newals early. It was greatly appreciated. We were able to extend our cash flow through a very critical time. A complete report of our current status will be presented at the Annual General Meeting some time in April. As another note if you know of any Hams who are newly licensed please encourage them to join M.R.S. It is with the constant growth of membership that we can also grow with the times and maintain the system we are putting in.

Although I have only been a licensed ham for just over 2 and on the M.R.S. board for just 6 months, I would like to thank George Adair VE4AGX for his years of service to the Manitoba Repeater Society. George has had to resign from the board due to the fact that he is now the proud parent of 2 gorgeous adopted children. This is something that he has been planning for many years. And as all new parents the children come first. But as a true Ham George is not far away from the field and he says he may even get a radio on the air again one day.

NOTICE CONCERNING TTU by Vern VE4VQ and Pat VE4PLG

We wish to extend a big thank you to the following people who have generously donated their time to man the TTU station at the Museum of Man and Nature: YU, WF, LIL, DAG, CY, AIM, LA, HAY, PJ, SN, MPH, PAM, HK, AAI, JBN, ACX, FC, UX, YF, AIP, EI, AG, VID, KX, RBF, AKW, MJM, ABA, GD, EN, HE, CIS, ADS, SE, XYL, II.

A very special thank you to Jim Ross VE4AJR for helping out whenever we got stuck for help. Thanks again, Jim!

For all you "new" hams out there, please give the TTU station a try, we're sure you will enjoy it. If you would like to work with someone who has worked the station before, please give Vern Dutton VE4VQ or Pat Giesbrecht VE4PLG a call and we will match up with someone. We are both good in the Blue Book.

The station is open every Saturday and Sunday from 1-4 PM. There is free parking behind the Museum and free entrance to Touch The Universe exhibit to anyone working the station.

Thanks again everyone and please keep up the good work.

MINUTES FOR W A R C MEETING held February 8, 1993.

The meeting was called to order at 7:36 pm by Dave VE4EF.

1. MINUTES - MOTION - moved by Don VE4GD to accept the minutes as presented in the Newscaster. Seconded by VE4SET. Carried.

2. NEW BUSINESS FROM THE MINUTES - none.

3. NEW CORRESPONDENCE 3.1. A letter from the D.O.C. was read stating that some 3 letter calls beginning with "Q" have been released for use. Anyone wishing more information can contact the D.O.C.

3.2. Another letter from the D.O.C. was read advising the club that an increase of 2.5 % has been proposed for amateur radio station licence fees.

3.3. NEWSLETTER - The Saskatoon Amateur Radio Club sent copies of their recent newsletters for our club's use.

4. TREASURER REPORT - Bill VE4KX reported that the club has a balance of \$1585.01 with 2 cheques to be deposited and no outstanding bills.

5. COMMITTEE REPORTS 5.1. FIELD DAY - Dave VE4EF announced that BOB VE4AOJ will no longer be organizing field day. Volunteers are needed to help. The dates for this year's event are June 26th and June 27th.

5.2. MARATHON - help is required to co-ordinate and work the marathon being held this summer on June 21st. Anyone who can help the club out please contact Dave VE4EF.

5.3. J-POLE WORKSHOP - was a great success with 15 participants. Vern VE4VQ thanked Witold VE4WK for the excellent workshop. Two J-poles will be installed at the University of Manitoba and Witold donated one to the club station VE4TTU.

5.4. VE4TTU- is in desperate need of operators. Please contact Vern VE4VQ or Pat VE4PLG.

5.5. WORKED ALL WINNIPEG AWARD - Dick VE4HK announced this year's W.A.W.A. QSO party will be held April 3 from 9am - 5 pm local time. Further information will be in upcoming Newscasters. 5.6. EDUCATION - Witold VE4WK has prepared a self study tutorial designed to be used with any IBM compatible computer. It took over 2 years to complete and includes questions to prepare the user for the basic exam. It will soon be available for sale through CARF. Witold also advised that VE4UMR is now operational on 147.27 (positive offset). Ed VE4YU thanked Witold for donating a J-pole to VE4TTU.

5.7. NEWSCASTER - Derrick VE4HAY has volunteered to take over publication of the Newscaster. One other VE4 has also expressed interest. Dave VE4EF thanked Albert VE4ALS for his work over the past year. Jim VE4AJR suggested putting the plans for Witold's j-pole in a future issue. The cost would be about \$16.

MOTION - Bill VE4JR moved that the club incorporate the J-pole plans into the Newscaster. Seconded by Bill VE4KX. Carried.

6. NEW BUSINESS 6.1. QSL CARDS - Jan VE4YS asked if anyone knew of a printer that was familiar with QSL cards. He suggested that several members are new to the hobby and perhaps could get a better rate if they were to order cards through the same company.

6.2. M R S DONATION - Derrick VE4HAY presented a donation to the M.R.S. of \$280, derived from the sale of the dumb terminals, with another \$80 to be added to the donation soon.

7. GENERAL DISCUSSION - The remainder of the meeting consisted on general discussion on the following topics of interest to members: a. displays at events such as the hobby show and career symposium b. RFI and possible committees to deal with problems c. Tower committee d. club by-law amendments e. the " Blue Book" f. QSL cards

The meeting was adjourned at 8:45 pm and was followed by coffee in the cafeteria.

ARTICLE FOR NEWCASTER BY DAVID VE4DAR

My first year as a "HAM"

Yesterday I celebrated my first birthday as a "HAM". Radio Amateurs, who have been on the air for forty or fifty years and have albums full of QSO cards, may not be impressed, but to me it was significant event.

I'm told we periodically review our progress through life as we age. One day I realized that something was missing from my life. I wanted something new and challenging; perhaps a hobby which I might carry into retirement. So I meditated on what I wanted as a child: Amateur Radio! Later I found a half-built sw receiver from the Boy's Life magazine in the basement (where else?).

In August the D.O.C. told me it was much easier now to get an amateur radio station licence. Morse code is no longer required to get on the air as a beginner. They sent me RIC 24 and 25. A few days later Wayne VE4ELH and I started car pooling to classes two nights a week until January. We studied; wrote the exam; and got our amateur licences (basic qualification) and call signs last February.

Most of our class spent a few hundred bucks on HT'S to get on the air --2 METRES, rubber ducky style. Jim VE4AJR helped me put local repeaters into memory and gave me a tour of the senior citizens Ham Shack. Sandy VE4TEL and I connected some 9913 to a one dollar "coat hanger special" in the attic and I felt I was really getting into it! "VE4LH, VE4DAR. How do I sound, Larry? Can you hear me?"

I discovered "London America" (Lorne VE4LA) when we were paired as radio operators at a hospitality and first aid post in the Manitoba Marathon. Next I worked with Jim VE4JR at the MS Society's "Bike Tour" between Headingly and Portage La Prairie. These activities exposed me to the public service facet of amateur radio and helped me to realize the effort, skill and collaboration required to set up the net and to be net control. About then I started checking into the MRS net regularly.

Field day attracted me to the top of the Saskatchewan Avenue hill where Rene VE4TV demonstrated ATV. In another tent I witnessed the flying fingers of Ed VE4YU sending CW for double points. Judy VE4JBN showed me how to write up the log for another operator. Kay VE4YF encouraged me to get on the air. I was really nervous when I tried HF. But I was thrilled to reach WA4USN on an aircraft carrier near Los Angeles! Next day Bill VE4UX gave me a shove into starting on my WORKED ALL WINNIPEG AWARD. During the summer I visited the Manitoba Amateur Radio Museum at Austin; had a QSO with someone flying a hot air balloon; and met Dave VE4XN and other Hams at the International Hamfest at the Peace Gardens.

Perhaps my best rag chews have been at the "Golden Arches" where hams gather every morning to exchange info and advice. You can listen to Vic VE4GJ describe using CW to make reservations for Trans Canada Airline, or overhear someone talk about teaching veterinary students how to artificially inseminate cows! Many are seniors on coffee break after walking Polo Park Mall. Nothing slack about that crew! Most are active hams interested in packet and computers; ready to offer government free advice on how to run this country. Saturday mornings they graciously expand the net to include us neophytes. I tried "Coffee at the BK" on Narin Avenue one Sunday evening, but it's too far for me to become a regular.

I've joined the Manitoba repeater Society and I attend the Winnipeg Amateur Radio Club's monthly meetings. Twice I've been privileged to be net control for the MRS net. Stations along the net were patient while I tried to build skill. One of Alec's (VE4AIM) battery charger kits sits almost finished on my workbench! Learning CW has been a challenge. Three times I've started and stopped. Nevertheless, I am determined to get my 12 WPM endorsement by summer. Perhaps I'll join Vern VE4VQ on a Dxpedition to Cumberland House, Saskatchewan.

It's been a busy and fulfilling first year. I've met Hams who are inquisitive, inventive, helpful and courteous. Thanks to all who have answered my many questions and have encouraged me to try the various aspects of this hobby (obsession?).

Worked All Winnipeg Award QSO Party ,April 3,1993 by Dick VE4HK

It's less than a month away!!! . Yes, third annual Worked All Winnipeg Award QSO Party will inundate the air waves on April 3, 1993. I want **YOU** to be there, call CQ,CQ. Simply wake up bright and early Saturday , April 3 and tune your HF rig to 14.165 Mhz, on 20 meters, 21.365 Mhz on 15 meters, and if 10 meters is in, 28.345 Mhz. If enough Winnipeg hams join in (is there any doubt ??), we will have a group on 14.240 Mhz.

We had quite a few hams participating last year. I know if you ask anyone of them, each will tell you that they had a fantastic time. I know I did !! Being on the receiving end of a RX pile-up is quite a thrill. I am hoping that we have the best turn-out ever in 1993.

If you are licensed only for VHF, here is your opportunity to try the challenge of HF. Simply find a friend with HF privileges and ask if you can assist in this momentous effort.

The Rules are as follows:

- All stations giving credit for the award must be located in Winnipeg.
- Other towns and cities in Manitoba are ineligible to give credit.
- Stations outside of Manitoba, but on the North American continent must work at least 15 different Winnipeg Stations.
- Stations out side of North America must work at least 10 different Winnipeg Stations.
- All contacts must be simplex, no repeater contact allowed.
- QSL cards are not required, simply a copy of the applicants log extract, certified by two disinterested hams.

The fee for postage and handling is \$2.00 or 6 IRC's

Mailing address:

Dick Maguire VE4HK

Worked All Winnipeg Award

598 St. Mary's Road

Winnipeg, MB R2M 3L5

Home Brew Night

April 12,1993

Monday April 12 is the date! Sturgeon Creek School is the place! Home Brew night is the occasion! &:30 is the time! Get moving today, to begin, or finish that winter project. Our blue ribbon panel of judges may decide that **YOU** project is the big winner! We are hoping to have a

better first prize than the hospital lotteries or the Bomber lottery!

Unfortunately I don't mean a date with a member of the Blue Brigade. {sigh} Get that soldering iron fired up, and go to it, time is running out.

Ham Radio and its affects on Cancer

- Extracted from Arrl

(Part 1)

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RF Radiation Safety

Although Amateur Radio is basically a safe activity, in recent years there has been considerable discussion and concern about the possible hazards of electromagnetic radiation (EMR), including both RF energy and power frequency (50-60 Hz) electromagnetic fields. xtensive research on this topic is under way in many countries. This section was prepared by members of the ARRL Committee on the Biological Effects of RF Energy ("Bio Effects" Committee) and coordinated by Wayne Overbeck, N6NB. It summarizes what is now known and offers safety precautions based on the research to date.

All life on earth has adapted to survive in an environment of weak, natural low-frequency electromagnetic fields (in addition to the earth's static geomagnetic field). Natural low-frequency EM fields come from two main sources: the sun, and thunderstorm activity. But in the last 100 years, manmade fields at much higher intensities and with a very different spectral distribution have altered this natural EM background in ways that are not yet fully understood. Much more research is needed to assess the biological effects of EMR.

Both RF and 60-Hz fields are classified as nonionizing radiation because the frequency is too low for there to be enough photon energy to ionize atoms. Still, at sufficiently high power densities, EMR poses certain health hazards. It has been known

since the early days of radio that RF energy can cause injuries by heating body tissue. In extreme cases, RF-induced heating can cause blindness, sterility and other serious health problems. These heat-related health hazards may be called thermal effects. But now there is mounting evidence that even at energy levels too low to cause body heating, EMR has observable biological effects, some of which may be harmful. These are athermal effects.

In addition to the ongoing research, much else has been done to address this issue. For example, the American National Standards Institute, among others, has recommended voluntary guidelines to limit human exposure to RF energy. And the ARRL has established the Bio Effects Committee, a committee of concerned medical doctors and scientists, serving voluntarily to monitor scientific research in this field and to recommend safe practices for radio amateurs.

Thermal Effects of RF Energy

Body tissues that are subjected to very high levels of RF energy may suffer serious heat damage. These effects depend upon the frequency of the energy, the power density of the RF field that strikes the body, and even on factors such as the polarization of the wave.

At frequencies near the body's natural resonant frequency, RF energy is absorbed more efficiently, and maximum heating occurs. In adults, this frequency usually is about 35 MHz if the person is grounded, and about 70 MHz if the person's body is insulated from ground. Also, body parts may be resonant; the adult head, for example, is resonant around 400 MHz, while a baby's smaller head resonates near 700 MHz. Body size thus determines the frequency at which most RF energy is absorbed. As the frequency is increased above resonance, less RF heating generally occurs. However, additional longitudinal resonances occur at about 1 GHz near the body surface.

Nevertheless, thermal effects of RF energy should not be a major concern for most radio amateurs because of the relatively low RF power we normally use and the intermittent nature of most amateur transmissions. Amateurs spend more time listening than transmitting, and many amateur transmissions such as CW and SSB use low-duty-cycle modes. (With FM or RTTY, though, the RF is present continuously at its maximum level during each transmission.) In any event, it is rare for radio amateurs to be subjected to RF fields strong enough to produce thermal effects unless they are fairly close to an energized antenna or unshielded power amplifier. Specific suggestions for avoiding excessive exposure are offered later.

Continued next month