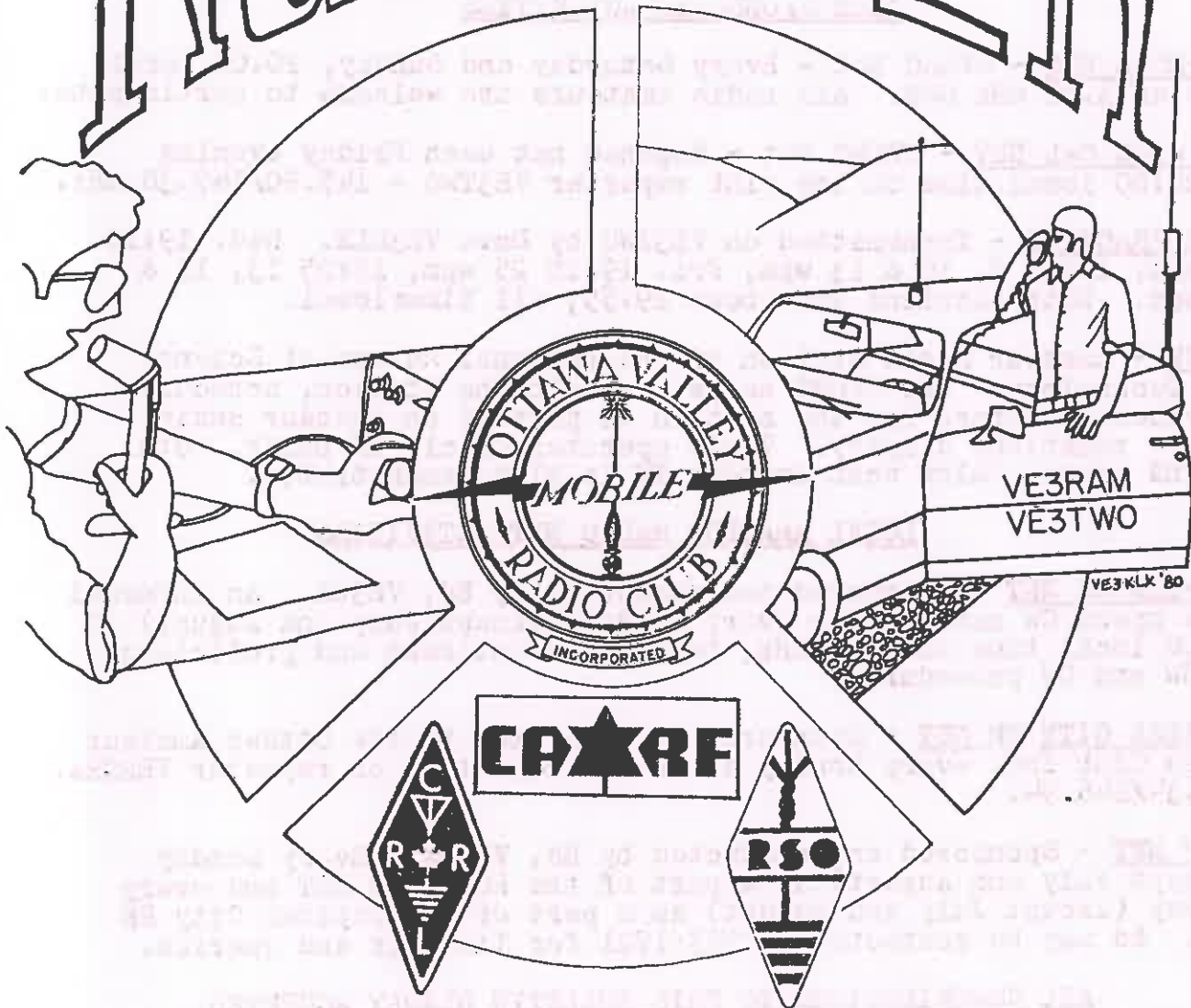


RÄMBLER



DEC 1982

THE OTTAWA VALLEY MOBILE RADIO CLUB INCORPORATED

1982-1983 EXECUTIVE

PRESIDENT	Russ Pastuch	VE3FSN	828-9235
VICE PRESIDENT	Dave Coutts	VE3KIX	829-2537
SECRETARY	Tim Evangelatos	VE3EWE	722-1358
TREASURER	Pat Brewer	VE3KJQ	725-1528
TECH ADVISOR	Dave Harris	VE3AMV	234-7812
PUBLIC REL.	Mike Shacklock	VE3LAR	523-1571
EDITOR	Jerry Wells	VE3CDS	225-7374
PAST PRESIDENT	Ray Perrin	VE3FN	225-8132

CLUB SPONSORED ACTIVITIES

POT-HOLE NET - OVMRC Net - Every Saturday and Sunday, 10:00 local time on 3.76 MHz SSB. All radio amateurs are welcome to participate.

THE WISE OWL NET - OVMRC Net - Ragchew net each Friday evening at 20:00 local time on the club repeater VE3TWO - 147.90/147.30 MHz.

CODE PRACTICE - Transmitted on VE3TWO by Dave VE3KIX. Wed. 19:10 20 wpm, 19:25 7, 10 & 13 wpm, Fri. 19:10 25 wpm, 19:25 13, 15 & 18 wpm. Both sessions end about 19:55; all times local.

VE3JW - Amateur Radio Station of the National Museum of Science and Technology. The OVMRC helps maintain the station, schedules provides operators for the station as part of an Amateur Radio public relations display. VE3JW operates on all HF bands, both CW and phone. Slow scan Amateur TV is also demonstrated.

LOCAL AMATEUR RADIO NET ACTIVITIES

POT-LID CW NET - Sponsored and conducted by Ed, VE3GX. An informal slow speed CW net meeting every Sunday (except July and August) at 10:00 local time on 3.62 MHz, to promote interest and proficiency in CW and CW procedures.

CAPITAL CITY FM NET - Sponsored and operated by the Ottawa Amateur Radio Club Inc. every Monday at 20:00 local time on repeater VE2CRA. 146.34/146.94.

SWAP NET - Sponsored and conducted by Ed, VE3GX. Every Sunday (except July and August) as a part of the POT-HOLE NET and every Monday (except July and August) as a part of the Capital City FM Net. Ed may be contacted at 733-1721 for listings and queries.

ALL CONTRIBUTIONS TO THIS BULLETIN GLADLY ACCEPTED

Membership in the OVMRC is open to all those interested in Amateur Radio. Regular Club Meetings are held on the third Thursday of each month (except July and August) at 20:00 local time unless otherwise posted. Meetings normally take place in the auditorium of the National Museum of Science and Technology on St. Laurent Blvd. (south of the Queensway).

VOL. 25 No. 10

PREZ SEZ

Once again, the annual OVMRC banquet was an unqualified success. A total of 32 eager gourmets descended on the Austrian Inn, the evening of the 20th November. It was very pleasing to see four of the amateur radio course students in attendance. The food was just fantastic and the service left little to be desired. It was a treat not to be in a restaurant where they tried to push drinks on you. The entertainment was certainly that. Everytime our table applauded the accordionist, he moved closer to our table. All in all a very enjoyable evening and the location will certainly receive lots of consideration for next year.

The course continues to go well. Although the numbers have dwindled somewhat, this is to be expected. I believe that of the students remaining, at least 50% will pass the first time and the rest the second or third time at the exam. The last Tuesday, I brought a transceiver in to show the differences between the various modes, bandwidths, etc. and the interest was incredible. Maybe now the theory they have learned will fit together into an understanding of the practical aspects of the hobby.

A little bird passed along a part of an interesting conversation that was overheard concerning the course. Apparently the material being taught is too difficult and being given too quickly. Unfortunately, as I mentioned on registration night, there is a lot of material and you do need to make a conscious effort to learn it. I am attempting to teach the material so that you understand, not just memorization of a lot of answers to questions. I care enough about the hobby that I would never consider doing such a thing.

As far as time being short, yes it most certainly is. This is determined by the date of the DOC exam. If it had been set in late Feb. or early Mar. I most certainly would have tried to expand the course.

I didn't have time to, I was too busy to, sorry, its like the homework. You're on the course because you want to be. I don't check if you've done the homework and I don't check if you've read the material and have spent time on your code practice. I can see very clearly by your quiz results how much you are or are not working at home. Some of the results really do hurt, I can see that you want your licence but are not working sufficiently to get it. This separation also shows clearly in class. Those who ask question before class, at break and after class, I'll do all I can, as will all the other teachers, to help. You're the type who may not pass first time but you have the guts to pass no matter how long it takes. If you're not willing to work, don't want to work or think the licence is a freebee, it's not!

Before I leave the course, I thought I should say that there is no way that any of the teachers fully anticipated the work involved in preparing each week's material. A rough estimate indicates that the five teachers are spending in excess of 40 hours total each week on preparation.

Winter is now certainly on its way. The January blahs and February doldrums will soon be upon us. If anyone can think of a good excuse for a skating/skiing/sleigh ride party, let the executive know. We really have little social functionings between the banquet and Field Day.

It may seem too early to think about the auction, however it is approaching in April. Time to clean up your junkbox and earmark some goodies for donation to the club.

I really seem to have gotten in a writing frame of mind this month.

Before I close, I want to wish all the members and dependents a very Merry Christmas and a very Safe and Prosperous New Year on behalf of the executive. See you all in 83.

Prez Russ
VE3FSN



VICE VOICE

Well it's already the end of November. Time for another article.

Not much to report. The code practice is still being used by a handful of people. No....it's still the same text. I still haven't got the tape copying mod going between recording equipment and computer. This is mainly due to lack of time more than anything.

The Wise Owl Net is going strong. Its strength, of course, is due to the participants.

The course, as Russ has previously mentioned, is steaming along.

Well that's about the extent of the vocabulary that I can strain from the brain.

See you at the December meeting.

Dave VE3KLX
Vice President



BLEATS FROM THE BACK ROW Serge VE3JRG

I attend meetings of the Amateur radio societies of which I am a member in order to be informed. My goal is education. I do not go there to show off my expertise in the art, for the obvious reasons: I don't have enough. Therefore for me, as far as the lectures are concerned it is essential that I at least hear the words of wisdom and see those new schematics. If I do not, I am better off to stay home and read QST, CQ or the Rambler.

I am sure the distinguished speakers we are privileged to welcome agree with me. Alas, for me, some do not achieve this first level requirement. Since I have discreetly established that I am not the only one who suffers - and mental suffering it really is - I diffidently offer some elementary aids to future speakers to ponder. Rules that I tried to follow when I myself had to stand behind a desk in front of fellow members or students. Needless to say not while talking electronics. All learned societies offer teachers a book of hints. This is a more informal set of suggestions.

The secretary of an institution to which I belong once gave me the following advice: "Write in 2 cm letters in Red Pencil SLOW - on every page of your text or notes". This is fairly sound advice, and, to make the message loud and clear another rule - speak up. Suggestion: Practice your spiel with someone at the back of an empty room. The one of dozens in the packed lecture

hall that you want to reach. At the end ask him if he heard every word without strain (He must be frank).

If there is an amplifying system provided for your use and a good mike, use it properly. No fiddling with the mike or leaving it on the desk while you are writing on the blackboard. A word also to those in the audience who ask questions or speak to motions. Do give those members behind you a break, rise and at least partly turn towards the audience, even better come to the front and take the mike. Many splendid fellows gabble in their beards in an infuriating way while you study the back of their head.

And now for the visual side, lists, charts and schematics projected down to beyond a certain size are as useless as wallpaper. If necessary simplify the original and enlarge it. If that is not possible at least go to the screen and tell us what the headings are and what the lines mean. Colour slides are wonderful, a picture is worth a thousand words, say the Chinese; especially if they are in focus, right side up, properly exposed and there are not more than 70. Only good ones, no duplicates, just the best of the set and let each one stay on the screen for at least 5 seconds, plus any explanation as called for.

Be introduced, and provide your introducer with a slip of paper with details about yourself. Plant a question or two at the end to get the ball rolling. Simple questions such as I would be afraid to ask, repeat the question so those at the back can hear it too. Provide the editor of the Rambler with a precis so that those who didn't come to the meeting will be sorry they missed you.

Start with a summary of what you plan to say and show beforehand. Time yourself so you don't overrun your time limit. It's surprisingly easy to do so. Finish with some sort of conclusion to encourage others to follow your example.

Ottawa is a tough town to talk electronics in. What with Bell, Mitel and NRC and other hot beds of Hi-tech, but not all who come to our meetings are PhD's. I think you may consider Dear Speaker, that your audience is composed of people who have a VE call sign, have been ops for a while and are there because they want to be and they know less than you do.

Dear lecturer, I love you for your effort, the time you have taken to prepare your talk and diagrams. I appreciate that perhaps you are nervous (no need to be) but do please let me hear what you say and see what you are showing me.

Sincerely yours
An Admirer

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MINUTES OVMRC MEETING 13 NOV. 82INTRODUCTION:

President Russ VE3FSN opened the meeting at 2000 hours and introduced the following guests: Syd Sheard - VE3BCL, Bob Ball - VE3MSK, Jack Garrett - VE3HSI and Neil Carleton. Forty members and guests were present.

MINUTES OF OCTOBER MEETING:

Bob - VE3NJI moved that the minutes be accepted, seconded by Bob - VE3KIK; the motion was carried.

OLD BUSINESS:

President: Russ - VE3FSN reported that the course was progressing fairly well. On Nov. 16, another simulated DOC test was held; of the 18 students present 12 handed in their test. Fifty per-cent passed; the highest mark was 98% and the average was 68%.

Past President: Absent

Vice President: Dave - VE3KIX reported that Von - VE3FXU passed his advanced exam in Oct., he found the code practice on VE3TWO a big help. Pres. Russ added that John Moodie - VE3NVZ passed the digital exam.

Technical Advisor: Nil report.

Secretary: Nil report.

Public Relations: Absent.

Treasurer: Absent.

Editor: Jerry - VE3CDS would like to have feedback on the material in the Rambler. He also suggested that the club members invite students to their shack, especially over the holiday season. He has found that the students are getting quite keen about station operation.

Stan - VE3GYF asked how the mentor system is working? Tim - VE3EWE replied that initially less than 30% of the students had contacted their mentors. Since then all the mentors have phoned their students and we estimate that about 50% of the students are making use of their mentors. Some students have friends who are hams and don't need our assistance. Rene VE3JKR informed the club that the Montreal Amateur Radio Club is charging \$120 for their course and that the instructors are paid.

NEW BUSINESS:

President Russ reported that in August when the course organizers met they decided to charge \$60.00 for the course. This included \$30.00 for materials, \$10.00 for club membership, and \$20.00 to cover the instructors expenses. Unfortunately funds from the course were deposited into the clubs account. Bob - VE3KIK moved a motion that \$700 be returned to the course organizers for expenses and any balance left at the end of the course to be donated to the club. Seconded by Dave - VE3KIX, the motion was carried.

Constitution: Jerry - VE3CDS and Mike - VE3LAR have not had time to review the constitution.

Spring Auction: Jerry - VE3CDS has volunteered to organize the auction. He is to pick a suitable date in April 1983 and reserve the space.

Entertainment: Norm Rashleigh - VE3DVF gave the club a very interesting talk on the 2 meter repeater VE3CPC. Owned and operated by the RCMP Radio Club, the repeater has been in operation for several years. Last winter a National Semiconductor voice synthesizer was installed Norm explained in detail the organization and operation of the "Digitalker" module and the 0085 microprocessor controller. Through the repeater users can get time, date, temperature and weather reports. The local law enforcement agencies can be quickly reached through the autopatch facility and a touch-tone test is available. Additional features to log autopatch users and to measure signal deviation are planned.

Next Meeting: To be held on Dec. 16, 1982, at the Museum of Science and Technology.

Executive Meeting: To be held on Nov. 25, 1982 at Ray - VE3FN'S QTH.

Adjournment: Moved by Dave - VE3KLX and seconded by Bob - VE3NJI. Meeting was adjourned at 2145 hours.

T.V. Evangelatos
Secretary

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PR PRATTLE

Greetings, Season's that is! I hope you have your requests into Santa already for all the new goodies that you just can't get along without! I think that I shall be looking for some more "stuff" for the Apple. Having bought two HT's at the super prices at the past RSO Convention, I won't be able to expect too much! Be a good boy (or girl!) and you won't get a lump of coal in your stocking!

The latest in the Ve3JW story is that a recent relocation of the front office staff has put a high drain on the Museum staff and as a result, construction in the workshops of the new booth will begin in the new year. The good news is that all the drawings are complete and things look great!

I was out of the country for most of November and missed the last meeting. I hope you went though. "Work" took me to London, Brussels, Germany and Italy. I didn't do any amateur radio activity because I had so many borders to cross. It would have been nice to fire up a station in Italy now that the reciprocal agreement is almost in effect. But I was quite busy and didn't really have enough time anyway (sour grapes?). While I was in London I did visit the Science Museum and took a couple of pictures of GB2SM. I will have them at the next meeting for you to look at if you wish. Otherwise the trip was really interesting, trying to see Rome all in one Saturday is really tiring! I did see the fountain of Trevi, the Vatican and the Colosseum as well as a few other of the standard attractions. I stayed just a stones throw from the famous Via Veneto.

Well that's not really Amateur Radio but -- oh well I had a good time. Don't forget if you want to help out with JW give me a call - 523-1571.

So 'till next time.

73 de Mike
VE3LAR

ANCIENT ELECTRICITY - from the "Feedline" Bulletin of the Niagara Peninsula Amateur Radio Club.

While earth-moving operations were being carried out near Baghdad in June 1936, railway construction workers came across an ancient grave covered with a stone slab. During the next two months the Iraq Antiquities Department extracted a wealth of artifacts from it dating to the Parthian period (248 BC to 226 AD) - in all, some 613 beads, clay figurines, engraved bricks and so on. But among them was an object of unique interest: a copper cylinder and an iron rod which the German archeologist Wilhelm Konig, then in charge of the Iraq Museum Laboratory, soon identified as probably being a primitive electric cell. Back in Germany at the Berlin Museum, he related the discovery to similar Iraqi cylinders, rods and asphalt stoppers, all corroded as if by some acid, and to a few slender iron and bronze rods found with them. As many as ten batteries, he concluded, had been joined up in a series in order to increase the voltage output, and the immediate purpose was to provide current for electroplating the excellent local gold and silver jewellery.

This remarkable conclusion received very little attention, for reasons which the chemist and physicist Walter Winton, a keeper at the Science Museum in London, explained when he went to Baghdad in 1962 to reorganize the Iraq Museum in new buildings. "Tell any physicist," he said, "that electrical current was being used 15 centuries before Galvani and his frogs' legs, and 'Fiddlesticks! Ridiculous notion! Impossible!' he will declare. This was my own reaction too when I first heard of it. I was extremely suspicious. A misinterpretation of facts, a hoax, a forgery, another grinning Piltdown skull. Why, if this were true it would be the biggest news ever in the history of science."

Primitive battery.

However, on seeing the battery he immediately recognized it as being a primitive cell. He says today that 'not being an archaeologist, I jumped straight to the easiest scientific solution. I still can't see what else it could have been used for, and if there has been a better suggestion, I haven't been told it. For absolute proof you would need some accessory like connecting wires, and I thought it important to make my interpretation public so that archaeologists would start looking for this in addition to the usual buried material with which they are familiar. Is a practical knowledge of electrical current at this period so unthinkable? I am sure the ability of early people is much under-rated. Perhaps the incredulity is in the mind of the unbelievers, and arrogant pride in our modern scientific achievements makes us unwilling to believe that the effects of current electricity could be known to our Mesopotamian ancestors 2000 years ago.

Voltage experiment.

Two separate experiments in the United States with replicas of the cells have produced a $\frac{1}{2}$ -volt current for as long as 18 days from each battery, using as an electrolyte 5 per cent solutions of vinegar, wine, or copper sulphate; sulphuric and citric acid, available at the time, would have worked equally well to operate

the cells. Beyond reasonable doubt, then, this is their purpose; and once you accept the use of electricity in those times, a new area of possibilities is opened up. Plating of gold and silver in Mesopotamia goes back 2000 years before then. How early was the technique used? Is it the original basis for the ancient art of alchemy? the practice of turning base metal into gold.

Nor does the apparently zany suggestion that the Egyptian pyramid builders used electric light now seem quite so speculative. There is a genuine puzzle here, noted in the 19th century by Sir Norman Lockyer. Deep within the pyramids, in pitch blackness, intricate and detailed paintings are etched into solid stone. Obviously the artists needed illumination of some sort, yet there is no sign of the blackened carbon on the walls that would have been left there by even well-trimmed torches and oil lamps of the kind normally used. Could they have used battery-powered lights? Engravings on the tomb walls of Dendera show devices that look curiously like electrical insulators and electric lights, and although the physical remains of these have not yet been found, it could be that as with the Baghdad batteries, it is a rare archaeologist who would recognize them.

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THE STUDENT'S CORNER

Here it is almost Christmas with less than two months 'til the big day when our students undertake to convince and prove to DOC that they have learned the basics of Amateur Radio and the code. It appears that many of the students are well on their way to success. January will be a critical period; all your extra time should be devoted to improving your code speed and constant review of theory, and regs.

Many of you are thinking of how to get started once you get your licence. What to buy? How much will it cost? Many questions about equipment. Here are some ideas for you.

If you want to, and can afford it, you may decide to buy a transceiver, there are a lot to choose from. Get data sheets on the one's you think you would like to buy and then before you buy find someone in the club who has one. See it in operation. Find out what the advantages and disadvantages are. You'll find club members more than happy to help you.

A good alternative to buying an all singing transceiver is to go the kit route. Excellent kits are available at a more reasonable cost with the added benefit of building it yourself. Perhaps a transmitter kit and a second hand receiver. Older model receivers are quite inexpensive and very good for CW operation. There are swap nets on the amateur bands where one can pick up some real good deals. If you've never heard one of the swap nets ask your mentor about it. Ed Morgan VE3GX runs a session as part of the pot hole net on 3760 every Sunday morning at 10 AM local time.

It's worthwhile to start off with inexpensive equipment as you will learn a lot about what's on the market in your first year as an amateur.

Get around and visit as many hams as you can before you make up your mind.

Next month we'll talk about antennas and such.

Jerry VE3CDS

T.A.'s CORNER

It's taken quite a while to put pen to paper, surprisingly, since there's a lot to report in both technical and non-technical matters. Public service and emergency communications are a main-line interest, so I'll start off with them.

One Sunday morning in mid-September, a dozen amateurs helped co-ordinate a running marathon organized by University of Ottawa students, for the benefit of the Childrens' Hospital. The whole affair was run on 146.52 simplex, and lasted about two hours. Mike, VE3JRF, even took the time to set up a Ringo-Ranger on a temporary mast in one of the University's parking lots. There was good co-operation, few hitches, and refreshments were served afterwards. The only real disappointment was at the awards ceremony, where credit was given to every participating agency, and some individuals, but nothing was said about the hams, in spite of their positions at every point along the route. Sometimes I suspect that our participation is too often taken for granted.

In a different vein, September 22nd saw a fair-sized group of amateurs participate in a simulated air crash, staged at Uplands airport. Our duties were mainly concerned with relaying casualty information in and out of most Ottawa hospitals. There are too many details to relate here at this time, but the bottom line is that amateur radio was received favourably. At the Queensway-Carleton hospital, where three of us were posted, the administrator was friendly, co-operative, and interested.

This type of operation brings to the surface some of the problems of operating VHF transceivers in close proximity, on more than one frequency. Overloading, desensitization, and intermodulation in sensitive front ends can turn out to be major headaches. Some uncontrollable factors are the other services operating on VHF, who are also involved. To compound the problem, there are (locally) an unhealthy number of high-power paging transmitters which, unfortunately, operate mainly one or two MHz above and below 2m.

Physical spacing, whenever possible, can help relieve some of the RF congestion. I have also noted good success with the "coffee can" coaxial filter, which can be constructed from tin cans, copper tubing, and some bits of hardware. A disadvantage of this is the filter's bandwidth, which is only hundreds of KHz, and needs retuning when moving by more than this. However, it is possible to have several switch-selectable settings for frequency ranges, each tuned by a separate trimmer capacitor.

Another (perhaps) less obvious alternative is to make use of VHF/UHF bands other than 2m. Sure, the popularity of 2m gear greatly exceeds that of the other bands in question. But in the last couple of years, surprising number of FM and multi-mode transceivers for 6m, 220, and 440 MHz have appeared on the market. Converters may work fine, but could be awkward if mobility or portability is important.

There "other" bands are mostly wide-open space! Those experimentally inclined, and operators to boot, can find lots of things to do. It's possible to experiment with repeaters, control links, antennas, and scores of other things, without bothering (or being bothered by) anyone. Rather than hole the old "use it or lose it" cloud over everyone's head, I think a "use it and enjoy it" attitude is more productive. At the same time, we should not forget that our poorly-utilized bands would be worth untold millions to commercial interests. Starting to make use of these bands now is our best defence for present and future..

Dave Harris VE3KMV

WOW! "WHAT A BEAUTIFUL SIGHT"

Strange title eh, What are we referring to? Our new antenna of course. We finally got it all together on the first weekend in December. The weather was fantastic, about 15 above - couldn't be better. Had visions of snow and cold for the past 3 weeks, we really lucked out. Let's start at the beginning and tell you the story as it unfolded.

We made up our mind back in the early fall to install a tri-band beam complete with rotator on a self supporting 40 ft. tower. Decided on the beam we wanted and ordered it. A couple of weeks later it showed up intact and in kit form along with an excellent blue print of how to put it together. It was an awful temptation not to put it together but with an 18 ft. boom and the longest element 36 ft. long it would take up the whole back yard. Wisely decided to leave assembly until the day of the final tower raising.

We turned our attention to the tower. I spoke to several fellow hams and decided to go with the heavy duty 40 ft. self supporting tower. In addition we also decided to use a tilt-over base. I spoke with a friend who has used this arrangement at 3 different locations and he recommended it most highly.

The tower was set in place - tilt-over base and one section, guyed and levelled and ready for the pre-mixed concrete which was supposed to come on a Saturday morning. The weather cooperated, it was well above freezing. Unfortunately the concrete failed to arrive. The truck broke down. Here I was stuck with a rented wheel barrow for the whole weekend.

In desperation I phoned every pre-mix company in town to try and get the base poured that Saturday. No luck, I had to wait until Monday morning. The truck arrived at 7:45 AM and we poured the base in about 20 minutes. I don't think the boys really liked moving about 4 tons of concrete first thing in the morning but there were no complaints. We got the wheel barrow back to the rental place before 9 AM and only had to pay the week-end rate. We lucked out there.

Not knowing too much about concrete the big question was, "how long do we have to leave it before we could put up the tower"? Asked several people, got many different answers from 2 days to 4 weeks. Decided to leave it at least 2 weeks - also did a lot of research on the curing of concrete - an interesting subject.

While the concrete was being allowed to cure we went about devising a method to get the tower up. Installed an eye bolt close to the peak of the house and worked out the geometry of the rope arrangement taking into account the load on the eye bolt installed on the roof - a big hole in the roof sure wasn't in the plans. With the use of a couple of pulley blocks, one on the roof the other attached to a car parked at the back of the laneway with the rope running from the top of the tower (tilted over) to the peak of the roof, down to the pulley attached to the parked car and then to the towing vehicle in the laneway. The whole scheme should work, on paper there was a wide safety margin.

Saturday Dec. 4 was the big day. We assembled the tower in a horizontal position - hooked up the rope arrangement and it looked O.K. We decided to lift the tower by itself to see how it would go. No real problems. Spent a fair bit of time lining up the rotor to ensure no eccentricity on the pipe section at the top of the mast.

We then spent all afternoon assembling the beam and finally ran out of daylight. We left the beam in the garden overnite and decided to raise the whole thing Sunday morning.

Up bright and early. Raised the tower enough to allow the beam to be installed. Now for the moment of truth. We double checked all the ropes and pulleys, made sure that everyone knew exactly what they were supposed to do. Eased the tower up to about 30 degrees, stopped, checked everything again. (It's amazing how much a 150 ft. length of rope will stretch the first time it is used). O.K. for the final lift. Eased the tower up, slid the locking pin into place, installed the locking bolts and there it was. "A most beautiful sight".

Our first contact about 2 hours later, ZL2AAV.

Jerry VE3CDS

NOTICE OF MEETING

The next regular meeting of the Ottawa Valley Mobile Radio Club will be held on Thursday, Dec. 16, at the Museum of Science and Technology at 8:00 P.M.

Come out and greet your fellow club members during the festive season.

JAMES A. HAMILTON, VE3GUY
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