

**Mount Vernon  
Amateur Radio Club  
K4US**  
*"PUBLIC SERVICE WITH  
FUN AND FRIENDSHIP"*



Volume 16

APRIL 2003

Number 04

## Ye Olde RF Output

### MEETING NOTICE APRIL 10, 2003

7:30 PM

#### INOVA MOUNT VERNON HOSPITAL

2501 PARKERS LANE  
ALEXANDRIA, VA

**SECOND FLOOR CONFERENCE ROOM**  
MVARC MEETS ON THE SECOND  
THURSDAY OF EACH MONTH EXCEPT  
IN DECEMBER

## HAPPENINGS

**April 10** - MOUNT VERNON AMATEUR RADIO CLUB monthly meeting. Held at INOVA Mount Vernon Hospital Second Floor Conference Room on Parker's Lane. See you there!

**April 1,8,15,22,29** - MVARC ARES NET- 146.055/146.655-8:30 PM local time. The Ten Meter portion meets immediately following the Two Meter Net on 28.415 MHz. Come and join in!

**April 26** - MVARC Breakfast will be held at The Old Country Buffet on Route 1 at 8:30 a.m. Everyone's invited to join MVARC members for breakfast. They meet the 4th Saturday of every month.

**MVARC REPEATER: K4US/R**  
146.055 MHz INPUT/146.655 MHz  
OUTPUT

AUTOPATCH AVAILABLE TO  
MEMBERS

MVARC HOME PAGE:  
<http://www.mvarc.org>

**NOTICE--VE EXAM LOCATION**  
**THE APRIL 12, 2003 VE EXAM WILL  
BE HELD AT**

**The FIRST CHRISTIAN CHURCH**  
**2723 KING STREET**  
**ALEXANDRIA, VA**

**CALL JOHN, WZ4A AT 703-971-3905  
FOR MORE INFO OR TO CONFIRM THE  
LOCATION OF THE TEST SESSION.**

Ye Olde RF Output is published monthly by the Mount Vernon Amateur Radio Club. Voluntary articles and comments are solicited.

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### MVARC/ CG TISCOM LIAISON

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703-425-5221



### MINUTES MARCH 13, 2003 MEETING

The meeting was held at the INOVA Mount Vernon Hospital and was called to order by the President. He then led the Pledge of Allegiance to the Flag.

Everyone introduced themselves. We welcomed our guests, Carl Clements, W4CAC; Tom Gregory, N4NW; and Tom Harmon, AK1E. Motion to dispense reading of the Minutes carried. The motion to accept the February 13 Meeting Minutes as published in the YORFO carried. John, K2VPR gave the Treasurer's Report. There was a question if the proceeds from the sale of a radio went into the Doc Hyde fund. The answer was that the proceeds will be moved into the Doc Hyde fund.

#### Committee/Event Reports

**ARES** - Steve, K3IZ thanked those who volunteered but didn't have to help since the President's Day parade was snowed out, and for those who helped at the St. Patrick's Day parade. Steve plans to re-engage discussions with the Fairfax County Police at the Mount Vernon Station on helping to find lost children and Alzheimer's patients. MVARC's Special Event celebrating George Washington's Birthday was carried out from several of the member's homes because of the snow. We had about the same number of contacts.

**VE EXAMS** - John, WZ4A said they had around 14 people at the last test session. He said the testing went rather quickly and that the Church is working out quite well. He asked if the donation was sent to the Church. It was.

**FAR** - Mary, N4TCI reported that

AUTOCALL is almost in the black and publication will probably continue. She said it's time to update MVARC's Handbook. She's going to start working on it.

**MVARC/CG TISCOM LIAISON** - Dick, N4YDP said there's no heat in the building nor an operational antenna. He said they will be participating on Armed Forces Day in MAY. He said they plan to move some equipment and are still debating how to set up the Access List. AF MARS meets on the third Saturday at the Old Country Buffet in Fairfax.

**PROGRAM** - Bob, KI3O said our speaker tonight was Carl Clements, W4CAC our Section Manager. DX night is slated for the April meeting, and the Venturing Crew will present at the May meeting, and Field Day will be the June meeting's main topic.

#### Business

Bob, KI3O, chair of the Nominating Committee announced the slate of MVARC officers proposed for the coming year:

President

Carol Cutchall, WA4GFW

Vice President

Paul Miller, Jr., AA8O

Secretary

Glenn Bilger, W4OCC

Treasurer

John Tyburski, K2VPR

There were no nominations from the floor.

The motion to have a Club table at the Manassas Hamfest carried.

Frank, AA4ZS wrote a letter on behalf of MVARC to Lee District Park asking to conduct a QRP Field Day on the grounds on April 19, 2003. He's waiting for their reply.

The TMARC meeting notice was forwarded to Frank, K4EC.

Bill, W2BSA proposed MVARC

establish a training budget but withdrew the proposal with no further discussion.

Steve, K3IZ showed us a Yaesu FRG-7000 receiver that was donated to the Club. John, WQ4L borrowed it to check it out.

Bob, KT4KS showed us a Civil War note that he purchased off of Ebay.

Thanks went to Joan Bilger this month's Cookie Monster. Next month Charlie, AF4NT and his wife Ann, KG4DEX volunteered to be the Cookie Monsters.

The meeting adjourned.

## **MVARC REFLECTOR PROVIDING MVARC WITH GREAT SERVICE!**

By Bob KT4KS

MVARC's mail reflector has proven successful in allowing MVARC members to conveniently use a single E-mail address to send messages to those members who have E-mail capability. The Reflector is intended to be used to distribute amateur radio related information to members, the possibilities of which are endless. To date, the Reflector has been used to provide information relating to repeater status by Frank, K4EC and Dick, WA4USB, upcoming ham radio test sessions by John, WZ4A, upcoming breakfasts, club meetings, speaker announcements, club newsletter by Bob, K3IO, new member introductions by John, K2VPR, ham radio scheduling by Bob, KT4KS, upcoming ham classes by Bill, W2BSA, book solicitations by Dick, WA4USB and Bob, KT4KS, newspaper articles referring to ham radio by Bob, KT4KS and ham equipment for sale by Shirley, N9JRT and Bob, KT4KS.

Regarding my own usage, I've observed that I generally receive E-mail replies to my own Reflector mailings about 75% of the time, suggesting that fellow members are actively considering these mailings. In addition, the Reflector provided me with the tool to successfully locate a club member, Ron, KG4WVD who would and did loan me his copy of "Now You're Talking" for a potential new ham operator. As further evidence of successful use, I'm aware that over 90% of Shirley's items that were posted for sale last month found new homes within one week.

The Reflector is not for the few, it's for all of us. Every club member interested in sharing any radio related item is encouraged mail it to the rest of our group. All you need do is type out your thoughts on an E-mail message box, address it to the Reflector mailing address

(MVARC@MAILMAN.QTH.NET), and then click the "Send" button. All of us are interested in radio oriented information. After all, that's why we are in the club. You may even like perform a monetary service to yourself by using the Reflector to sell ham items that you no longer need. Just be sure to price your items to sell.

Anyone interested in the technical specifics about the Reflector should consult the MVARC web site and click on the "MAIL REFLECTOR" box, or go directly to:

[http://www.mvarc.org/info/mvarc\\_mail\\_faq.html](http://www.mvarc.org/info/mvarc_mail_faq.html).

## **GROWING MEMBERSHIP LISTS**

by John, K2VPR

Please welcome Ron Gunn, KG4WVD, to MVARC membership. Ron is a general class licensee, licensed this year. Ron's email address is [rgunn@strategicfutures.com](mailto:rgunn@strategicfutures.com).

You can change your

records to indicate that Jim Parker's ,K4FPE email address from is now jim1101@cs.com.

Welcome aboard new member David Lane, KG4GIY. David is an extra class license holder and lives in Manassas, VA. David is a Laurel VEC member, EC for Prince William County, ARRL Emergency Comms and Courage online member. David's email address kg4gij@arrl.net.

## WHAT'S THE LATEST ON THE REPEATER

by Frank, K4EC

Hi All:

I believe that it is time for a repeater status update. As you know we have had an extended period of problems mostly related to construction at the GW Masonic Temple (GWMT). This began almost 2 years ago when we had to move from the "11th" floor to the "10th" floor because of the installation of new elevator mechanics and controls. When this move occurred we were given a much smaller floor footprint on which to install our equipment. This necessitated removing the duplexer and repeater we had been using so successfully. Both of these units were in two 6 foot high equipment cabinets and there was not enough floor space to install these units on the 10th floor. We installed the Motorola repeater and duplexer which had been used at WD4PDP's house. The woes continued when we took a lightning strike which wiped out the repeater transmit amplifier. This event showed us that the lightning arrester, which we had assumed the City of Alexandria had installed on the antenna feedline, was none existent. We repaired the amplifier and installed a Polyphaser lightning arrester.

Last fall, the City began construction of a new, air conditioned, equipment room on the 10th floor for all of the radio

equipment at the GWMT. This is a good thing for the MVARC repeater since it would provide a stable environment for the equipment. The construction caused us several problems at various times: construction workers moving the repeater and breaking connections; and wrapping the repeater in plastic sheeting to keep out construction dust, but increasing the heat buildup because of lack of ventilation. During this period the repeater output was inexplicably reduced from 75 watts to 20 watts. Hindsight indicates the heat buildup might have been the beginning of a catastrophic amplifier failure.

Almost 2 weeks ago, the repeater output dropped to a very low level. We went to the repeater site, but were unable to measure any output. Troubleshooting of the 100 watt amplifier shows that we have a failure in the driver stages of the amplifier. The amplifier was removed and the repeater was placed back on the air with the 0.4 watt exciter.

While running at these lower power levels (less than 25 watts) demonstrated that the receiver was more sensitive. This is indicative of the duplexer requiring realignment and which is currently allowing some of the transmit energy to get back into the receiver causing receiver desense.

KD4CNS and the Venturing Crew loaned us a "brick" style 200 watt amplifier to temporarily get the repeater back to higher power. Bench testing showed that 0.4 watts would produce about 80 watts output. This was placed on the repeater, but with 2 days we were informed that the repeater was transmitting spurious emissions in the lower end of the 144 MHz band and in the 222 MHz band. The repeater was immediately shutdown, the following day the malfunctioning amplifier was removed, and the repeater was placed back into service at 0.4 watts.

The Repeater Committee is studying alternatives to provide a

long term solution to the repeater situation. First, now that we have room at the repeater site we plan on installing the original duplexer which is in the 6 foot equipment cabinet. This will solve the receiver desense problem. However, this project will require some strong backs because the only way to get large equipment into the repeater room is using a chain fall mounted on a steel beam above the 11th floor and hoisting the equipment up about 25 feet through 2 trap doors in ceilings. Any volunteers?

Second, the Venturing Crew is donating another 6 foot equipment rack which we need to get to the repeater room. This cabinet will give us plenty of room to install the repeater equipment, controller, power supply and any auxiliary equipment such as a 2nd receiver and voter. We currently do not have equipment space to do this. This will be brought into the repeater room when the duplexer is installed.

Third, the actual repeater. Should we try to get replacement boards and parts for a 30 plus year old repeater or purchase a new repeater. Yaesu, under their commercial equipment Vertex brand, has a 2 meter 50 watt programmable repeater which costs about \$2,000. I have talked to members of the Stafford ARA which replaced their Motorola Micor VHF and UHF repeaters a couple of years ago with the Vertex repeaters. They say it was the best thing they have ever done. The NVFMA has also purchased a Vertex repeater about a year ago, but I have not had a chance to talk to them about the acquisition. Let me know what the membership thinks. k4ec@arrl.net

I would like to thank the members of the Repeater Committee, Sterritt, K4MBE; Doug, WA3WEP; and especially Dick, WA4USB, who has born the burnt of and spent most of the time keeping the repeater operating.

## WHY LEARN THE CODE?

Gisle, LA5EKA

The answer is quite simple. A while ago I realized that Morse code is the heart and soul of amateur radio. There are plenty of discussions on how obsolete/inefficient/difficult Morse code is, and quite soon it will not be required by the ITU to learn Morse code to gain access to the HF bands. For me, all this is irrelevant. Why? Well, I was earlier a "no code tech". Got my tech license so that I could play with radios and whatever. I soon got quite bored, however, by old geezers on the repeaters, the odd satellite QSO now and then, and some packet radio experiments every blue moon. I then started with FM ATV experiments, trying to whip up some local activity, but still no thrill.

One day however, I was lucky enough to get my hands on a multimode 70cm rig. After working the repeaters on FM with it, I wanted to try out the "multimode" capabilities. I found out there was some kind of "test" going on every once in a while on 70cm. I didn't know what a test was, or what they were testing, but I joined using SSB, and soon found out about the monthly 70cm NAC tests (Nordic Activity Contest). It was fun for a while, but kind of "cool but no cigar". I heard a lot of Morse code on these 70cm tests, and to me it was all gibberish.

After a while I got my hands on a multimode 2m rig, and could now participate in the 144MHz NAC tests as well. On 144MHz the activity was tenfold of that on 70cm, more stations to work, and more fun. Both these rigs had a jack on the rear panel for connecting a Morse code key. I started playing with the thought that perhaps I too could connect something to that hole in the back and get more test points and QSOs by hammering on a key? I found SSB contacts really hard sometimes, when band condi-

tions were bad, but still I could in fact hear them, but not well enough for a contact and aurora was quite impossible on 2m SSB.

The CW ops seemed to work them; perhaps I could? I decided to "look into" the matter. I searched the Internet for software and clues on how people usually learned the code. I read a lot of articles on how and why, don't and why not etc... So all in all I found quite a bit of info, and thought I had what I needed. However, I had a nagging feeling that something was wrong, so I did nothing. It wasn't until I read about the Koch experiments I understood what was it was. By reading the Koch paper, all the pieces fell into place.

Six weeks later I was using Morse code efficiently in the 144MHz and 432Mhz NAC tests. Working aurora late nights, enjoying the casual CW QSO with some station in Denmark or far east Sweden when conditions were adequate. Since I only had to take a Morse code test to get an A license, of course I did it. LA5EKA emerged from LC4PAT the 8th of June 2000. I was working both SSB and Morse code day and night. With new HF privileges there was a world of opportunities out there. There seemed to be no end to the excitement. I realized that I was having great fun, and that this was what amateur radio was about.

Now, almost three years after I started learning the code, I'm still as excited as ever when working HF. Though now I mainly do CW. In 2002 I had 95% CW, 0.3% PSK and 4.7% SSB. There is something magic about the Morse code. It's much easier to use than SSB, by far. Even when conditions are good, I think. No mumbling, no language problems, no constant phonetic repeating of LIMA ALPHA FIVE ECHO KILO ALPA to an operator with no ears, no ZOO like pile-ups, no need for kilowatt amplifiers etc...

If I hadn't started out learning the code and using it, I would still be sitting there, listening to the

repeaters, whining about my technician privileges, talking down the CW ops etc... But as I said, I've gotten in touch with the heart and soul of amateur radio, and I am enjoying every minute of it. I feel sorry for all the "radio amateurs to be" in the future, feeling that they don't have to learn the code. Some of them will realize what they are missing, and learn it, but I fear that most will not.

Ok, now a comment to you digital mode people, writhing with frustration about my opinions of the "obsolete" Morse code. I'm sorry guys, but I find no challenge whatsoever in typing on a keyboard, and using a computer to decode the incoming data. It's ok for casual ragchewing I guess, and every once in a while it can be fun. I work daily with computers, and have plenty of people I can chat with using IRC and the like on the Internet. There's no more challenge in that than running PSK from my shack at home. It works fine, and is efficient in many ways, but alas, very boring. I find it a bit like flying on a commercial plane from one place to another; you're just sitting there, not actually flying the thing. Not much to brag about is it? And at last, I can communicate with others by banging two sticks together, blinking a lamp, blowing a whistle, or even using smoke signals. Can you do that with your computers?

From eham.net

## HOLLINGSWORTH PREACHES COURTESY, COMMON SENSE

FCC Special Counsel Riley Hollingsworth told those attending his forum at the Richmond, Virginia, Frostfest February 9 that Amateur Radio enforcement still has a long way to go, but that amateurs can do a lot through peer pressure to head off problems before they become

enforcement issues.

"Enforcement is no substitute for courtesy and common sense," Hollingsworth declared. "More courtesy would go a long way.

Hollingsworth again suggested that amateurs "operate so that listeners will be impressed with Amateur Radio," not offended or turned off by it. He said awareness of Amateur Radio is on the rise in the wake of media attention since September 11, 2001, and, more recently, with ham radio assistance in the search for debris from the shuttle Columbia. He pointed to 20 and 75 meters as the current enforcement hot spots as well as the bands where the least courteous operating practices are found--some of which he described as "a disgrace" to the Amateur Service.

Off-the-air peer pressure, he said, is an effective tool to provide guidance to amateurs who may be unaware of how they sound to others on the air. The reactions of some hams when they confront interference--or perceived interference--can be worse than the original interference--whether or not it's deliberate. "Don't overreact," Hollingsworth advised. "The best reaction is no reaction whatsoever." "You have to always be aware of your image and be willing to protect it," he told those gathered in the packed forum. "You can't shoot yourself in the foot." More than 1000 attended the Richmond Frostfest, sponsored by the Richmond Amateur Telecommunications Society <<http://www.rats.net/>>.

The use of new technology and on-the-air experimentation also sometimes brings controversy to the amateur bands, Hollingsworth said, and may prompt an occasion for the FCC to revisit its current Part 97 Amateur Service rules. Hollingsworth pointed to the use of so-called "enhanced SSB," where experimenters have been attempting to achieve full-carrier AM-like high-fidelity audio in that mode. Hollingsworth said the presence of the enhanced SSB experimenters has led

to complaints to the FCC--as many as 20 per week--that these signals are taking up excessive bandwidth.

Hollingsworth told his Richmond audience that deliberately operating a wideband mode in a crowded spectrum is "shortsighted and rude," may be ignoring the "minimum bandwidth necessary" rule. If its use isn't accompanied by courtesy and common sense, he said, it will lead to pressure on the FCC to revise the Amateur Service rules.

The "Emission Standards" section of Part 97--specifically §97.307(a) and (b)--requires amateur transmissions to not occupy "more bandwidth than necessary for the information rate and emission type being transmitted, in accordance with good amateur practice" and to "not cause splatter" on adjacent frequencies.

Hollingsworth said the bandwidth of a given signal is not easily determined by the average amateur transceiver--even one equipped with a band scope of some sort. He pointed out that the problems with apparent splatter can be aggravated by the use of a noise blanker on the receiving end. "Just because it sounds wide doesn't mean it is wide," he said, adding that he'd prefer the amateur community come up a way to accommodate such experimentation, because "a government solution will be worse than the problem."

## HAM RADIO: WHERE TO GROW

by Steve, K4IZ

At the last club meeting I was given an article from the Feb 24, 2003 issue of AUTOWEEK Magazine by John, WZ4A. It was a very interesting story of how a 4X4 club, The Xterra Club in Nacogdoches, Tx. helps find pieces of the Space Shuttle Columbia. They described how the drivers used Ham Radio, GPS and their 4X4s to

provide this service. The author told of the efforts of the group and how all these services worked in the effort.

John had a very good idea about all this. What if those of us in Ham Radio proposed to these folks to become hams? It may be that their first interest is off-roading, but so what. Ham radio fits right into their hobby. Mobile operation is right up their ally or back road as the case may be.

We know that a lot of the astronauts are hams so they can talk to school kids and their families at home. A lot of the search and rescue people who use dogs for their efforts to track lost campers and hikers use Ham Radio quite a bit. Radio controlled airplane and ship groups have a goodly number of hams involved. How about hang gliding, train watching, and those campers and hikers? There are people who do Volksmarches, boating, or road rallies. They all could use Ham Radio. I am sure there are more.

Are there other groups out there who would benefit from ham radio as an adjunct to what their primary hobby is? These folks have the resources, money, and could be willing to put forth the effort to get a license. The only problem is they might not even know that our hobby exists. They might have an idea that Amateur Radio is some roomful of tube equipment with a grizzly geezer grinding out Morse Code to the ether. Or they think its something weird like the movie "Frequency", good movie but somewhat misleading.

Aiming our efforts toward kids is great to get young people involved with the hobby. If that is the only effort, some grownups might think that ham radio is for the unsophisticated and children. It's nice to say a 7 year old passed her exam but, don't focus on that. Adults could associate Ham Radio with "kid stuff". It is after all called "amateur" Radio.

Let keep getting the kids involved; that's a good idea. Just because someone is a little older is no reason to ignore a potential new Ham. If a group comes to mind who could benefit from our training and testing then go for it; invite them to a club meeting. As always be true to the MVARC way as the friendliest club in town . Remember you can catch more flies with honey than vinegar.

## SECTION NEWS SUMMARY FOR FEBRUARY

SM, Carl Clements, W4CAC,  
ASM; W4PW, SEC; N4NW,  
STM; W3BBBQ, PIC; W4PW,  
ACC; W4IM, OOC; W4NEZ  
TC; KD3PC.

Web page; [www.arrlva.org](http://www.arrlva.org). Section  
News  
web page;  
[www.arrl.org/sections/VA.html](http://www.arrl.org/sections/VA.html).

ARES web page; [www.aresva.org](http://www.aresva.org).

Section Traffic web page;  
[w4cac.tripod.com/vastm/](http://w4cac.tripod.com/vastm/).

These Section News summaries and the information on the Section News web pages comes from information sent to me by the membership. If you have a news item or an event that you would like to see featured here, please send an email to

me at [w4cac@arrl.org](mailto:w4cac@arrl.org) with "Section News" in the subject line. February started the hamfest season for the section. The Frostfest in Richmond seemed to draw a good crowd. Then later in the month the Vienna Winterfest was held at the Northern Virginia Community College. I urge you to visit a hamfest near you this year. You will not only be supporting the club or group that is sponsoring the fest, you may actually have fun and meet both old and new friends. You may also find that elusive bargain, you know, the one that you just can not live without. The next hamfest is the Springfest sponsored by the Chesapeake Amateur Radio Service. The Springfest will be held on April 12th at the Hickory Ruritan Club on Highway 168 South in Chesapeake. Then on June 1st is the Manassas Hamfest sponsored by the Ole Virginia Hams Amateur Radio Club. Remember, keep the news coming, and YOU are the ARRL.

73 de Carl, W4CAC.  
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ARRL Virginia Section

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