

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



Volume 16

JULY 2003

Number 07

Ye Olde RF Output

FIELD TRIP
JULY 10, 2003
7:30 PM
COX COMMUNICATIONS
2917 ESKRIDGE ROAD
FAIRFAX, VA

MVARC MEETS ON THE SECOND
THURSDAY OF EACH MONTH EXCEPT
IN DECEMBER

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

AUTOPATCH AVAILABLE TO
MEMBERS

MVARC HOME PAGE:
WWW.GEOCITIES.COM/MVARC/

HAPPENINGS

July 10 - MOUNT VERNON AMATEUR RADIO CLUB Field Trip Cox Communications, 2917 Eskridge Road, Fairfax, VA . See you there!

July 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!

July 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.

NOTICE--VE EXAM LOCATION
THE JULY 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



MINUTES JUNE 12, 2003 MEETING

The meeting was held at the INOVA Mount Vernon Hospital and was called to order at 7:30 p.m. by the President. He then led the Pledge of Allegiance to the Flag.

Everyone introduced themselves. We welcomed our guest, Thomas Peterson formerly KM4NM. The motion to approve the Minutes as published in the YORFO carried. There was no Treasurer's Report.

Committee/Event Reports

ARES - Steve, K3IZ said it's not early to start signing up to help at Marine Corps Marathon in October. George, N1BV said that Clarence, N4MZM in Springfield needs help with his Yaesu 757. There was a question, How Do you become an ARES member? The answer was you can sign up at WWW.ARESVA.ORG follow to Online Registration.

EDUCATION/VE EXAM - John, WZ4A said this Saturday is the VE Exam. It will be the last time for these Element 2 questions. A new pool of questions will be used starting in July. He expects a pretty good crowd.

FAR - Mary, N4TCI reminded everyone that this year's FALLFEST will be held at the Howard County Fairgrounds on September 6 and 7. She passed around a sign up sheet asking for volunteers to help.

REPEATER - Frank, K4EC reported that Dick, WA4USB got a block and tackle to move the equipment into the our Repeater area. Doug, WA3WEP is working on the 100 watt amplifier. He's replacing six transistors. Are we replacing

the repeater? Frank checked out a Kendacom -the specs looked good but when he asked a rep from NVFMA, he suggested we stick with Motorola. So we're back to shopping for Motorola repeaters. Currently, we're only running eight watts.

MVARC/CG TISCOM LIAISON - The President will meet with the MARS Officer at TISCOM and will let the Club know the status.

COMMUNITY OUTREACH - Bob, KT4KS will get news coverage at Field Day.

PROGRAM - Bob, KI3O said next month we will meet at the Cox Communications facility in Merrifield (Intersection of Lee Highway and Gallows Road). Bob will send an email with directions and get a count of who is attending.

Business

The group is meeting on the third Saturday this month at the Old Country Buffet since Field Day is on the fourth Saturday. Join us if you can.

Carol, WA4GFW showed us a homebrew Antenna Polarization Control.

Thanks went to Bob, KT4KS this month's Cookie Monster. John, K2VPR will be the Cookie Monster in August.

The meeting adjourned.

OUR CLUB HAD SUCCESSFUL FIELD DAY AT POHICK

by Bob, KT4KS

On Saturday, June 28, club members assembled at Pohick Bay Park to celebrate Field Day activities. The first member arrived at about 8:15AM was Bob, KT4KS, who arrived to find that a tree had fallen across the parking area of the site overnight. Bob brought practically nothing with him to the event, other than a few dollars, a WORLDRADIO coupon,

Washington Times newspaper, a map of the State of Virginia, his intellect and two hands to help. Steve, K3IZ shortly arrived thereafter with the "I Zed" mobile which was loaded up with tent, rig, computer, antenna, chairs, and canopy. Other members subsequently arriving included Paul, AA8O who brought a tent and fancy rig for 10/6/2M; Doug, WA3WEP and Emily, brought his rig and antenna in a large air-conditioned camper; Howell, KG4CKJ who brought his antenna; Terry, N4ZH who brought a 30 foot tall antenna tower that supported his 15 M Quad. John, WQ4L who brought his traditional tent to house his 20 M CW station.

Carol, WA4GFW and Leila, WN4PP delivered the two generators that were necessary to power the rigs, and allow Doug to enjoy the event in his air conditioned camper. Mary, N4TCI arrived with a large cache of food, an amount which must have taken Mary more than the 2 hours to assemble/pack than she expressed at the site. A large group of helpers arrived during the event to help set up, transmit and eat, including: Julie, KD4WSZ; Ruth, KU4WH; Roland, KG4KAG; Frank, AA4ZS; Venture Crew's Jon, KG4YED; Charlie, AF4NT; Anna, KG4DEX; Glenn, W4OCC and Joan, Brad, N3BF; Demi, K4BSA; Tom W1NSS, John WZ4A, Mike, KE4ER; Terry, K7MPPI; Gloria, N4ZZD; Young Nicholas, and a few others having a more silent nature. One newer club member, Mike, arrived with his two young children of ages 4 and 6, the children of which actually pulled up one of the ends of Paul's dipole. It was noted that three of our routine Field Day attendees, George, N1BV; Frank, K4EC; and Dave, N4YPR, could not make the event due to a wedding and ailments.

About 1:30PM the stations were all set up, so lunch was served to provide our then wilting members with sufficient energy to carry the day. There was lots of

water, soda, and cold cuts available, so by 2:00PM all were ready to act. The remainder of the afternoon went smoothly, though the 15M stations was not successful in obtaining the contacts of years passed, resulting in the club's most impressive antenna structures was taken down early.

The picnic began at about 5:30PM, the food being cooked by both Doug and Glenn. There was lots of fine food on the table, and everyone ate well. This will no doubt be confirmed by the many photos that were taken by both Leila and John WZ4A. During the eating, a large crack was heard, with a subsequent falling of a rather large limb in the woods only 50 feet away. While this would have led to some level of concern by rational mortals, the MVARC crew was not deterred, and immediately returned to their tree covered tents to make more contacts.

Early in the evening, the club was visited by the publisher Floyd Harrison of the Lorton Valley Star. Mr. Harrison, a former General Class ham operator, saw our "Free Ham Demonstration" sign along the road, and drove to our site to investigate. Mr. Harrison spoke to several club members about the possibility of a Ham Radio article for his local paper.

Coincidentally, it was found that Mr. Harrison lives on the same street as Club President Carol.

About 8PM, a large group of neighboring campers paid the club a visit. About 10 youngsters (ages 1 through 10) came over with about 3 supervising adults to see what ham radio was about. The entire crew was led into the 40M phone station, where the children were given a demonstration of how well an IC 706 rig performs. Luckily, the clarity of the sending stations was high, so the kids were delighted to hear clear voices of hams who were transmitting from the state of Kentucky. The kids asked lots of question, including: What does HAM stand for? How far can a ham radio reach? How do you get

a ham license? Can you show me the antennas outside? What was that man (WQ4L) doing with those funny sounds (CW) in the other tent? What is Morse Code? When was Ham Radio invented? Can you reach India with a Ham radio? Impressively, the 10 youngsters were actually raising their hands to ask questions, and they never shouted over one another. After all of their questions were answered, they were escorted out of the tent to see the antennas and obtain a Morse demonstration from John, WQ4L. The youngsters were very interested in the dipoles that were pointed out to them, and inquired how they were put up so high. The youngsters were then shown Jon's Icom 2M V8 Handi-talkie as a typical example of what a new ham radio operator used. Surprisingly enough, the highlight seemed to be John's 20M CW Station. The youngsters all stood around John's tent, and watched him as he hit the funny paddles to make a barely audible sound. When John finally pulled the ear phones from the rig, the kids then clearly heard the loud CW tones that provided for the contacts. Many of the youngsters asked specific questions about CW. At that time, Ruth provided the youngsters with the club's Ham Radio Archie Comic books, and many of the youngsters were discussing the Morse code chart on the back of the books. The three adult guests also asked questions, and were provided with particular club information, ARRL web site, and also phone number of a club member to contact if they ever really want to get involved in our hobby. It was made clear to the adults that the entry level into our hobby was only a 35 multiple choice test, and that our 2M rigs could be had for less than \$100. One of the adults was given a 2M demonstration on a 2M mobile, as a short QSO was had with a member of the Woodbridge Wireless, who invited the adult to come on down to their Field Day event. The entire crew of 10 was happy to see our radios, and it

probably made for much discussion after they returned to their homes in Herndon VA.

The event went into the night with several members, at least Steve, Howell, Doug, and Paul staying over night. Breakfast was served early Sunday morning, compliments of Doug and Tom. By 10AM many of the contacts being made were duplicates, so the members started to slowly break down their stations. As in passed years, each station had lots of help in this responsibility, so no one was left to pack their own items by themselves. Both Ruth and Bob helped John, WQ4L take down his station, and John was packed and gone in 30 minutes. Howell, Ruth, Bob, Leila, Carol all helped to break down Paul's station, and many helped to get Steve's 40M phone station broken down and packed into/on-top of the "I Zed" mobile.

At about 1PM it was time for the final lunch. Doug cooked up the remaining burgers and hot dogs, and all of the members took their last meal for the event. All of the food on the table was good, and nothing went untouched. At the end of lunch, all helped to pack away any remaining items on the table, and to carry the refuse to the dumpsters. Doug efficiently dealt with packing away all of the cooking items at the barbeque.

By 2:30PM, all was packed, all was clear, and everyone headed for home. Everyone was quite beat from the activities and worn from hot weather, but everyone was left with many fine memories about that one particular weekend for the rest of their lives. After the event, Frank, AA4ZS expressed that he "had a really nice time, and that the weather could not have been better, especially on Saturday." Hey, do any of you non-Field Day people even remember where you were on June 28 and 29 of 2003? Everyone listed above certainly do.

REPEATER REPORT FOR JULY '03

by Frank, K4EC

We had a complaint of our repeater putting out a spur and causing interference with a Maryland repeater. Sterret, K4MBE observed nothing while looking at a spectrum analyzer. After obtaining additional info and finding that the offended repeater is on 147.345, Dick, WA4USB and Sterret, K4MBE ran some tests. We were creating a spur on 147.945.

Dick is pulling the out-board amp currently operating at the repeater site some time on Monday. We will be back to the 400 milliwatt level. As we found with the previous amp, if you do not have enough drive or run an amp way below its rated power level you can create problems. Both GE and Motorola caution against running their 100 watt amps below 50 watts. Doing so can cause the amp to generate spurs. Remember we also got spurs with the big 200 watt brick we previously tried on the repeater.

On the good news side of things, WA3WEP has discovered that the 100 watt amp requires 2 driver and 4 final transistors. RF parts wants \$43 per transistor which is kind of high, but these are unusual transistors which run as PNP devices and not the more common NPN. He was able to find the driver transistors in his workshop from a previous MVARC repeater repair, so we only need the 4 finals. He is going to order these this week. [These have been ordered and are awaiting their arrival which will probably be here by the time you are reading this. - ed. note] We still plan on obtaining a backup Motorola amp, even a 60 watt would work quite well for our purposes.

Of course, the primary order of business is to get the repeater cabinet and Large duplexer to the repeater site so we can run the higher power without

desensing the receiver.

HARMAN'S HUSTLE RESULTS IN MVARC MUSCLE!

by Bob KT4KS

On Saturday, June 21, a group of MVARC volunteers successfully transported a club duplexer and large cabinet to the club's repeater site, located on the 10th floor of the George Washington Masonic Temple. The task was coordinated by Dick, WA4USB, who after securing several volunteers, planned and executed the task with speed and efficiency normally associated with our repeater crew.

At about 3:15PM, both Dick and Howell, KG4CKJ arrived at Bob's, KT4KS home to pick up the club duplexer unit. Howell arrived with his large truck that included an assortment of antennas which is another story for another time. Dick's vehicle included a rented dolly and ramps necessary to safely move the unit out of Bob's porch. It took only 20 minutes to load Howell's truck with the duplexer. The group of three then drove off to the Masonic Temple, where the remaining volunteers were expected to meet at 4:30PM for the larger task at hand.

Between 4:00 to 4:30PM volunteers began to congregate in the Temple's parking lot. During that time, Dick expressed that it was initially difficult to get volunteers, but at the end he ended up getting eight, having to turn two away. When Club President Carol WA4GFW was asked about the job ahead, Carol confidently expressed that, "This [cabinet move] is no big deal, as we'll [MVARC] be transmitting from the Coast Guard Station in 60 days". Carol then proceeded to describe his Presidential style as one of "Lead, follow, or get out of the way". Other volunteers who showed included: Leila, WN4PP; Bill, W2BSA; and Erin, KG4RKK

(who arrived with the large cabinet), Steve, K3IZ; Jeanne, N4ZGI; Roland, KG4KAG and Sterret K4MBE.

The task at hand included carrying the duplexer and cabinet to the first floor elevators, elevator ride up to the 9th floor, walking up terribly steep steps to open trap doors on both the 10th and 11th floors, securing block and tackle on the roof of the 11th floor and passing rope down through the two trap doors to the duplexer and cabinet on the 9th floor, individually the lifting the duplexer and cabinet from the 9th to the 10th floor, and then positioning the units by the existing repeater equipment.

Carrying up the units with the dollies went well, the crew being careful to generally place cardboard below the units whenever a dolly was let down. Once the units were on the 9th floor, they were individually lifted with the block and tackle by MVARC's muscle members. Everyone one seemed to be pleased with the smoothness of the work, as exhibited by Erin who was actually seen dancing on the 10th floor. When Leila, WN4PP was asked how she felt when she saw the group actually lift the units, she said, "Very proud". Leila took many photos of the event, and hopefully some of the shots will be made available at either a club meeting or web site.

MVARC's equipment on the 10th floor already included the repeater which is about 31" tall with base of 21" by 8", a controller, about 4" tall and 15" by 8", sitting on the repeater, and the smaller duplexer, as this is about 24" tall, sitting on the floor. Now, the equipment also includes the larger transported duplexer which is 6 feet tall. The larger duplexer will be better able to reject the transmitter's signals from the repeater receiver. The additional large cabinet, also 6 feet tall, will house the repeater equipment including the CAT controller.

After the duplexer and cabinet were properly positioned alongside the repeater, the group took

the liberty of walking outside on the 9th floors observation deck on the exterior of the building. On the west side of the deck, Jeanne mentioned that she understood that the discoloration of the soil and lawn on the grounds immediately to the west of the Temple was the result of the firing of the cannons on Shooters Hill during the Civil War, when the site was then known as Fort Ellsworth. Steve mentioned that the 5 new Patent Office Buildings in the Carlisle Complex, just 400 yards south-east of the King Street Metro, will cause a traffic nightmare. Bill was a bit concerned that he would never be able to get his daughter, Erin, back inside the building as she loves heights. Fortunately, for Bill anyway, Erin got cold and returned inside. As to the view, Erin expressed that, "It was awesome". Dick pointed out the club's folded dipole antenna on the Temple roof to club members. Roland mentioned that he had recently gotten married, and that he would be at Field Day the next weekend.

Once all the items were collected, everyone went down the elevator, and exited the building. In the parking lot, Dick then thanked everyone for coming to help. Dick reminded all of us that the repeater site, electricity, air conditioning, and phone all cost the club nothing, and then stated that "We are grateful to provide services in the event of any emergency". When queried, the entire group agreed that it was Dick's efforts that made this project successful.

YORFO REPORT FROM THE FRONT

June, 2003 Bagdad, Iraq

Thanks for the copy of the YORFO. It definitely brought a smile to my face this morning as I sat reading it in by office in Bagdad. Yep, I'm in Iraq on a 120 day TDY with the Army Corps of Engineers. The only antennas that I've

seen have military vehicles attached to them. So there is not much radio news to report from this side of the world.

Iraq is hotter and much drier than anyone can imagine. I drink about 6 liters of water a day and still feel thirsty. The people are friendly (except the ones shooting at us.) and for the most part tell me and my co-workers how much they love America for getting rid of Saddam. Yet, we feel their frustration of not being able to get back to work. It is hard to explain that it will take time, first they need some form of government and functioning banks and monetary system.

We have been working with Iraqi engineers doing building assessments, writing scopes of work and letting contracts for repairs. Most of the damage to the buildings that I've seen, except for the airport, have been done by vandals, looters, and arsonist. It is strange to walk through a building that has suffered this destruction. One office will be filled with ashes, scorched walls and ceilings and devoid of furniture. The office next to it looks like someone could walk in at any moment and start work. The destruction is just too systematic to be anything but planned.

Tom has been busy traveling also, last month he went to Rio and to Madagascar to install LANs for computer labs. We may have moved to Mobile, AL, but have not spent too much time there lately.

Please tell everyone "Hi" for me.

Best wishes for a successful field day,

Marilyn

SEND THE WELCOME WAGON

by John, K2VPR

Again the MVARC has another new member. Say hello to Tom Peterson, 8016 Hollington Place, Fairfax Station, VA 22039. Add his home phone, (703) 690-9304 to your rosters. Tom's old call was KM4NM, he is waiting for his new call to be issued. He has NOT listed an email address on his application.

5 MHz ALLOCATION UPDATE

When the five new 60-meter channels become available to US Amateur Radio operators at midnight (12 AM) local time on July 3, the rules will impose a new record-keeping requirement for hams. The requirement applies only to those using something other than a simple half-wave dipole on the 5 MHz allocation.

According to Part 97.303(s), a half-wave dipole on the 5 MHz allocation will be presumed to have a gain of 0 dBd. "Licensees

using other antennas must maintain in their station records either manufacturer data on the antenna gain or calculations of the antenna gain," states the newest addition to the FCC's Amateur Service rules.

Because the new rules also require hams to run no more than 50 W effective radiated power (ERP) on the new channels, the choice of antenna becomes an important compliance factor. The FCC rules stipulate, "For the purpose of computing ERP, the transmitter PEP will be multiplied (by) the antenna gain relative to a dipole or the equivalent calculation in decibels."

ARRL has posted a list of frequently asked questions (FAQ) concerning 5 MHz operation on the ARRL Web site, www.arrl.org/fandes/field/regulations/faq.html#sixty.

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