

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



Volume 18

MARCH 2005

Number 03

# Ye Olde RF Output

## MEETING NOTICE

**MARCH 10, 2005**

7:30 PM

**MOUNT VERNON  
GOVERNMENTAL CENTER**

2511 PARKERS LANE

ALEXANDRIA, VA 22306

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

## HAPPENINGS

**March 10** - MOUNT VERNON AMATEUR RADIO CLUB monthly meeting. Held at MOUNT VERNON GOVERNMENTAL CENTER 2511 Parker's Lane, 22306. 7:30 p.m. See you there!

**March 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!

**March 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  
PL TONE: 141.3 Hz

AUTOPATCH AVAILABLE TO  
MEMBERS

MVARC HOME PAGE:  
[WWW.MVARC.ORG](http://WWW.MVARC.ORG)  
[WWW.MVARC.COM](http://WWW.MVARC.COM)

**NOTICE--VE EXAM LOCATION  
THE MARCH 12, 2005 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.**

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

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### MINUTES

### FEBRUARY 10, 2005 MEETING

By George, N1BV  
Club Secretary

The meeting was held at the Mount Vernon Governmental Center and was called to order at 7:30 p.m. by the President, Carol WA4GFW. He then led the Pledge of Allegiance. Everyone then introduced themselves. The December minutes, as posted on the reflector, were approved. John, K2VPR, gave the Treasurer's Report.

As of 31 January 2005

Checking: \$1,062.17

Savings: 3,341.90

Cash on hand: 116.50

Doc Hyde fund: 906.50

TOTALASSETS: \$5,427.07

George, N1BV, provided the ARES report and noted that the number of ARES Net participants dropped to three last week.

John, WZ4A, provided the Education/ Volunteer Examiner Report. He provided the test results and a history of MVARC's test involvement.

Mary, N4TCI, reported on the FAR and stated that Diane had only three applicants for FAR Scholarships. Mary also brought copies of Autocall.

Frank, K4EC, gave the Repeater Committee report. He said reports were received that the repeater was not operating as it should. Tests were run, PL-on and PL-off, during the drive (peak usage) time. As far as the Committee could ascertain, the repeater was working properly. An informal discussion of the repeater antenna was held.

was held.

Carol, WA4GFW, reported that the 950 and 850 at the Coast Guard Station were down. Both were in the process of being checked out. The 2m rig was operational. Coordination with Keith Daniels at the Station indicated that a change-out of equipment might be possible.

Bob, KT4KS reported on Community Outreach. He introduced one new member, Ed Potts, KI4GDP and Jim Hall.

The Raleigh NV Hamfest was mentioned. K4EC recommended that we be aware of the 400th anniversary of Jamestown which was coming up.

Bob, KI3O, reported that he needed speakers for the upcoming meetings.

There was no unfinished business.

Under new business, John, W4ZA recommended a review and updating of the MVARC By-Laws be undertaken to include among other things, quorum requirements and incorporating Robert's Rules. George, N1BV, assisted by Anna, KG4DEX and Charlie, AF4NT, will provide a draft for consideration.

A discussion of what material was proper for posting on the Club Reflector. The following motion, amended by Dick, WA4USB, was made by John, WZ4A, and seconded: "Being the sense of the Club, the email reflector be used only for the dissemination of information necessary for the operation of the Club". The motion passed with two opposing.

Bob, KI3O, raised the issue of reimbursement of guest speakers. It was moved and seconded that the Program Chair explore the expenditure of funds to attract future speakers. The motion passed unanimously.

Upcoming events were announced, including the MVARC Special Events Station at Mt. Vernon. Show and tell was followed by adjournment. Anna, KG4DEX and Charlie, AF4NT, were the Cookie

Monsters. John K2VPR volunteered for the duty next month.

A video presentation by Bob Heil of Heil Sound Ltd. on sound and amateur radio followed.

## HAMS R US

By Dave, AI4FC  
YORFO editor

Jeanne Rexroad, N4ZGI, got more than her "15 minutes of fame" last month when she helped deliver eight pound, seven ounce Ester Phebe Scheib - by phone.

And in the telling of the tale, Jeanne underscores her interest in emergency service that brought the technician-plus operator to ham radio and the Mount Vernon Amateur Radio Club a decade and a half ago.

The tale starts on Feb. 10 with a 911 emergency call at 7:28 a.m. that was routed to Jeanne, a communication supervisor at the Alexandria Fire Department's Dispatch Center.

It seems that baby Ester was on her way into this world even though her mom was still in the pickup truck daddy Donald Scheib was trying to maneuver through rush-hour traffic to the BirthCare and Women's Health Center on King Street.

The parents got a late start from their Charles County, Maryland home. It wasn't all their fault. First their car got stuck in the mud, so the couple had to abandon it and to take the truck. By then, with Ester pounding at the door, roads were so congested that progress was slow.

According to Connection Newspapers, before Jeanne met Donald on the emergency phone, a cop pulled him over on the Maryland side of the river near the Wilson Bridge for going too fast and driving erratically. "When I told him where I was going and why, he looked at my wife, waved me on and said to drive carefully," the

newspaper quoted the frantic dad as saying.

Moments later, now on the Virginia side of the bridge, is when Jeanne got the call.

"His wife was making clear in the background that the baby was coming," Jeanne recounted. So Donald, with cell phone to ear, steered the truck off the freeway and into a parking lot.

"The contractions were so close together that he finally resigned himself to wait and have the baby right there," Jeanne said, who offered a steady stream of encouragement and advice for guiding Ester into the sunlight.

"He proceeded to deliver the baby," she said. "The poor guy was frantic. He did a heck of a job."

And by the time baby Ester made her appearance, Jeanne said, the ambulance she had dispatched arrived. All this happened in about four minutes' time.

Jeanne said Alexandria is fortunate to have enough equipment and manpower that its response time is about four minutes, meaning that Ester was just outside that window.

"We don't find ourselves in the situation where we get to help parents deliver a baby," she said. "Usually help comes right away."

But the worst part was yet to come for Jeanne and the ambulance crew.

With the Scheib family safely, err, delivered to Alexandria Hospital, now came the onslaught of television and newspaper reporters looking for a good-news story.

"The rest of the day turned into a media event," said Jeanne. "The media event was much more stressful than helping the father deliver the baby. But it was probably the best press we could get."

Jeanne has been a 911 communications supervisor with Alexandria since 1975 when the job required emergency medical training. Now much of the staff relies on manuals to help them offer assistance to callers until trained help arrives, she said.

Jeanne's interest in emergency assistance is what drew her to ham radio in 1990.

"That's been a driving force for me to keep involved in amateur radio, making sure that they're organized for emergencies and that the city has relationships with the clubs," Jeanne said.

She feels strongly that for the Mount Vernon club in particular, emergency service should be a big part of its activities. The city permits the club to have its repeater on top of the George Washington Masonic Temple with the city's communications equipment, in part because of the service it and the club's members give during emergencies.

"We have a responsibility," said Jeanne, who has been a leader in regional Amateur Radio Emergency Service work.

As to her intervention in Ester's entry into the world, Jeanne describes it as if it were just another day at the 911 desk.

"Helping someone deliver a baby is not as stressful as dealing over the phone with someone who is choking," she explained.

"But it certainly is rewarding."

## NEW AMONG US

The club's membership rolls increased by five in February. Our newest members are:

\* Ed Potts, KI4DJP, who splits his time between the Washington area and Hampton, VA. Ed is the director of the Navy's Marine Relief Society in Bethesda, and lives weekdays in a motor home at Andrews Air Force Base. He has held a technician license for more than a year. Ed was born with radio in his blood. His dad, Thomas J. Potts, is W1NRY in Massachusetts. After 30 years in the military, Ed said he's finally found an opportunity to get licensed himself. He found the club by way of its 2-meter repeater and said he attended a couple of meets before deciding to join. Reach Ed at 301-

442-2054 or via e-mail at [potts@nmcrs.org](mailto:potts@nmcrs.org).

\* James K. Hall, KB3LXM, is a brand new technician. He is one of three new members this month who were successfully tested at the Venture Crew's examination last month. James lives in Washington, D.C. near Capitol Hill and is in the home improvement business. His real love is sailing, and James said he is now working furiously to upgrade his ham license in anticipation of a sailing excursion across the Atlantic and to the Mediterranean Sea, probably in 2007. He already owns the sailboat, a 32-foot Galaxy sloop that he said "is old but she is built like a tank." James came to amateur radio via the hobby's distant cousin, CB. The sailing venture will be something of a journey home for James, who said he grew up in Tangiers. Reach James at 202-543-2338.

\* Marc Lacy, KD7RYY, is a voice many of already know from the repeater. Marc's home QTH is in Vancouver, Wash., but he spends a lot of time here in the Washington area because of his military assignment to working on homeland security. When in the area, Marc lives at the Residence Inn in Alexandria, where he can be reached at 703-548-5474. His e-mail address is [mlacy@teleport.com](mailto:mlacy@teleport.com). Marc holds a technician license and said he would upgrade were it not for the CW requirement. "I've been struggling with the code for 40 years," said Marc, who enjoys the roundtables on the club's repeater. "This is a good friendly group," he said.

\* Howard C. Gay, W4UF. Howard, who holds an extra class license, moved to the Washington area recently from the Charlottesville area, where he had been vice president of the Albemarle Amateur Radio Club last year. Howard also was a certified VE examiner with the Albemarle club.

\* Douglas Jemison, KI4IPK, whose technician class license was earned at the Venture Crew's testing session last month. Doug can be reached via e-mail at [dj22306@yahoo.com](mailto:dj22306@yahoo.com)

## FAR SCHOLARSHIPS

The Foundation for Amateur Radio, Inc., a non-profit organization plans to administer fifty-five (55) scholarships for the academic year 2005-2006 to assist licensed Radio Amateurs. The Foundation, composed of over seventy-five local area Amateur Radio Clubs, fully funds three of these scholarships. Ten are funded with the income from grants. The remaining forty-two are administered by the Foundation without cost to the various donors. Licensed Radio Amateurs may compete for these awards, if they plan to pursue a full-time course of studies beyond high school and are enrolled in, or have been accepted for enrollment at an accredited university, college or technical school. The awards range from \$500 to \$2500 with preference given in some cases to residents of specified geographical areas or the pursuit of certain study programs. Additional information and an application form may be requested by letter or QSL card, postmarked prior to April 30, 2005 from:

FAR Scholarships  
Post Office Box 831  
Riverdale, MD20738

## MINDING YOUR Q's

By John, WQ4L

As the saying goes "April showers bring May flowers." But to amateur operators using the low HF bands, the saying should be "Summer rain brings radio pain."

Using the word static to mean interference to, or disruption of, radio reception is a relatively new application of that term and has a strange origin. Static not only

applies to atmospheric interference but also to other kinds of random interference caused by loose connections, defective components, etc. Continuous interference such as hum and power line buzz is generally referred to as just noise.

Originally the word static derives from the Greek word *staktikos*, meaning "making stand" or "causing to stand." The English use related to fixed conditions or causing to stand still. An object not moving is in a static condition. Most engineering students take a course called Statics analyzing the forces of stress, tension, pressure, etc. in fixed structures. Dynamics is the study of these same properties in objects in motion.

How then did the word static become associated with radio interference? As far as can be determined, the word was applied to any random noise that disrupted radio communications because it made reception stop or stand still. I suppose that the interference could just as easily been caused dynamic since it results from the force of the moving electromagnetic wave.

This leads to the origin and application of the Q code symbol QRN. Many hams incorrectly use QRN as a noun for the word or words atmospheric noise. QRN actually represents the complete sentence, "I am troubled by static." The QRN should be followed by a digit ranging from 1 to 5, where 1 represents none and 5 represents extremely. QRN? asks the question "Are you troubled by static?"

If you are a regular CW operator, the next time you hear another operator tapping out to you something like "The QRN is pretty bad here today" gently remind your contact that all the extra words are not necessary and that QRN4 says it all. You may then also reply with QRS? or QSZ? -- two of the most useful Q signals for both experienced and beginning operators. ( If you don't know these codes, you will find them along with a lot of other useful signals in the ARRL

Operating Manual, the Handbook or on the internet.)

## THE MVARC REPEATER HISTORY

By Dick, WA4USB

The MVARC repeater and repeater committee have served the amateur radio community for many years. During the last 17 years, our repeater has been used in direct support of the public during the 9-11 attack, hurricanes, parades, mass casualty drills, and similar events. The equipment over the years has changed.

First, in 1988 it was a Spectrum with 19w at WD4PDP's QTH, car battery powered. It had 3 db gain antenna at 230 ft AMSL, 100 ft of 9913, and was not frequency stable. There was no coverage in Old Town Alexandria. The repeater was coordinated by TMARC.

In 1992, a Motorola 100 watt Micor Compa station was donated by K4EC, but there was still no coverage in Old Town Alexandria. Squirrels ate the jacket on 9913 feedline. WQ4Q donated 100 ft Andrew 1/2" Heliac. More power to the antenna! Alas, the 3 db antenna came apart and was replaced with 4.5 db Diamond antenna, which later had to be silver soldered at the joints, but noise problems persisted.

This was replaced with a Station Master antenna. In Dec. 1995, the Club purchased a CAT-300 Controller with Digital Voice Recorder. In June 1996, the City of Alexandria offered ARES - MVARC an opportunity to use the old Fire Department 154 Mhz equipment, antenna and site at GW National Masonic Memorial. MVARC would maintain the station (375 watt tube type) and ensure that it was available for ARES (RACES) use in Alexandria during exercises and emergencies.

This offer was initially given to another radio club, but

they would not agree to provide the maintenance; Therefore, MVARC was given the opportunity. MVARC, after approval of the Executive Committee and membership got a similar-to-existing repeater, with a higher power amplifier. All boards (receiver, exciter, etc.) were interchangeable.

The antenna is 4 bay folded dipole with 6 db gain, and it is about 200 ft higher than WD4PDP's location. This vastly improved our repeater coverage, except to the south. A phone line for control and autopatch is provided by the city. Backup power has the same reliability as the city public service radio systems. No interface from other repeaters exist.

At the site, there is one 39 Mhz base station, a 166 Mhz repeater, and all the rest of the equipment is in 800 Mhz range. We were on the 10th floor and then moved to the 11th floor, and then back to the 10th floor, and then relocated on the 10th floor during expansion and reconstruction of the City Radio Room.

During construction, our repeater was inadvertently wrapped in plastic to keep the dust out - but that kept the heat in, leading to failures. In May 2001, a lightning strike took out our PA, Power Control Board, and several Public Address systems in the GWNMM. The Compa also had residual failures, including the power supply.

Numerous failures were repaired, but additional components failed over time. In the 2002-2003 timeframe, the site underwent renovation and includes the antenna at the very top of the GWNMM, a newly constructed secure room with fire, smoke, temperature and Intrusion alarms, air conditioning, UPS, on-site generator, electricity, and telephone service at no cost to MVARC.

The room also houses Alexandria Public Service Radio Systems, and radios for the Sheriff and US Marshals Service. All of these systems use frequencies well away from the 2 meter amateur band.

From Oct. 2003 to the present, a Motorola 350 watt MSF-5000 has been used, which is on an indefinite loan to MVARC. Venture Crew 80 was offered the MSF-5000 system, with a full set of spares, and a TxRx Duplexer. Stipulations included that the equipment could never be used in commercial service. Should the equipment be removed from service, it would be returned to Crew 80.

The equipment was retuned from 170+ Mhz to 146 Mhz. This equipment is much newer and more efficient than the Compa station, which ceased operation in early May 2004. While it had served well, it's time had come. In May 2004, the MSF-5000 was installed. [There were more volunteers than could fit in the rooms on the 9th, 10th, and 11th floors at the repeater site.]

The installation went very well. This MSF-5000 equipment is excellent. It was not removed from service because of any failures. The user needed additional power. It is the same technology that is in use today by many public safety, paging, and trunking radio systems in the US, Canada, Europe and throughout the world.

The City of Alexandria uses MSF-5000 radios for its Public Safety communications. The breakdown of the Motorola is: over 260 watts, 132 to 174 Mhz, full MSF capable, 120VAC, programmable squelch methods, 25Khz channel spacing, repeater/base station.

If you check Ebay or other sources, you would probably find prices for this used equipment around \$2,500 for the repeater, another \$2,500 for the full set of spares, and another \$2,500 or more for the TxRx Diplexer. Although the MSF-5000 is capable of

stand alone repeater operation, it is not Part 97 compliant in terms of ID and remote control requirements. An external controller is therefore required.

The Repeater Committee members have a unique set of experiences in each of their specialties.

Frank, K4EC, is the committee chair and has many years of experience in public safety, amateur repeaters, and is an ex-Section Emergency Coordinator. Doug, WA3WEP is an EE with many years of hands-on experience. Dick, WA4USB, has been programming computers for 46 years and began working with GE tube type repeaters in 1965. Sterrett, K4MBE has been employed for many years as a radio technician on this type of equipment, plus numerous HTs. Frank, AA4ZS assembled a backup MSF-5000 to controller interface and serves as a control operator.

Other control operators include WA4GFW, N1BV, K4BSA, W2BSA, K3IZ, and N4ZGI. Steve, K3IZ is the trustee for K4US. Several amateurs and technicians who are professionally employed by Motorola and Motorola Authorized Service Companies have assisted the repeater committee for many years.

## WANNA BONE UP ON YOUR CW? JOIN US...

Little rusty on your CW? No confidence that you can send your dits and dahs in the right order?

Have we got an offer for you! Every Saturday and Sunday morning at 7:30 a.m., a group of MVARC members -- and others on occasion -- meet at 3675 Khz for a 30-minute roundtable. Frequent participants are Brian, WV4V; Dave, AI4FC; Frank, AA4ZS; Brad, K4RT; and Dawn, KD4AWN, who lives in Stephens, VA.

The idea is purely fun. Obviously, there's not enough time to do much serious chatting. But it is a perfect way to hone your copying skills while also getting a bit of time to pound some brass to a very forgiving audience.

There's no set speed for the roundtable, but we try to match our speed to the slowest member of the group. So if you hear us sending faster than you can copy, don't fret. Send your call at a break between contacts and we'll adjust our speed to meet yours. The idea is to give people a place where they can meet CW buddies without the pressure of a random QSO.

Most mornings Frank serves as our net control, and typically sends out a CQ inviting lurkers to join in.

And if the code has you frazzled at the end of the 30-40 minute session, make the switch to SSB by joining some of us MVARCers on the 8:30 a.m. Cherry Tree Net at 3920 Khz.