The Monitor

Holiday Banquet Changes This Year!

The MARA club will hold a normal club meeting on December 4th at Evers.

The MARA "Christmas" banquet has been moved to January 8th. This banquet will be the normal traditional "ham and spouse" dinner, with musical entertainment and recognitions, but will be held in **January** instead of December. Hey, Bob, take note!

The VARA club will not hold a special Christmas event this year. The normal VARA club meetings will be held on December 2 and January 6.

Goodbye to Two Good Friends

It is with great regret that we must report the passing of two valley hams this past month.

Joe Moomaw (left) , W4XD, passed away after several years of poor health, and Bill Edmonson (right) W4IMS passed away at his home in Harrisonburg after a few months illness. See page 2.

W4XD

W4IMS

Bill Edmonson, W4IMS, SK

William H. (Bill) Edmonson, W4IMS, passed away on October 30 at his home. Bill was 77. He was born in Buckingham County VA and grew up in Bridgewater. He was a graduate of Bridgewater College and the Air Force Institute of Technology. Additionally, he held a masters degree in Education from JMU. Bill retired after 20 years in the Air Force.

Bill was a veteran of Viet Nam, and worked at ComSonics for a number of years after retiring from the Air Force. He was active in the MARA club, and was a regular on the Monday night ARES Nets. He was always at Field Day, showing surprising energy for a man in his mid-70's. He is one of the few in his generation who took a hankering to computers.

Bill had been in poor health for about six months, and missed the last few MARA meetings. He is survived by his wife Frances, three sons, and several grandchildren, as well as two sisters. Bill will be greatly missed.

Photos provided by Frances Edmonson

Joe Moomaw, W4XD, SK

It is with sadness that we report the passing of Joe Moomaw, W4XD at the age of 84. Joe was a charter member of VARA, a real "old-timer" having been a ham for at least 60 years. Joe mentored many of us in the art of contesting and set a high standard for CW operation. He could consistently copy in his head at speeds well in excess of 35 wpm and carry on an intelligent conversation with the rest of us as he made those contest contacts.

Joe was a great supporter and organizer of many of the field days supported by the club. It was Joe's antennas and Joe's radios we used in the early years – CW of course. Joe had microphones for his radios too – but it took him a while to locate one when you tried to get him on phone.

At right is one of Joe's early stations. Joe was instrumental in keeping high-speed CW in the forefront of the local ham radio scene. He was an inspiration to us all – we will miss him.

Photos submitted by Gordon Batey

Kudos: Gerry Brunk K4RBZ, President of ARMS

Congratulations to Gerald Brunk, K4RBZ, upon being elected as International President of the Amateur Radio Missionary Service.

Gerry has been a member of this worldwide organization since 1967, and served as president 30 years ago (1971-1973)!

The Amateur Radio Missionary Service (ARMS) organization was begun in March of 1957 for the purpose of providing communication with missionaries through amateur radio, and to provide them with assistance such as equipment and financial support.

Most of the contacts with missionaries was by individual ARMS members rather than on the nets that were established, although some missionaries did check into the nets.

From the beginning, the organization has been non-denominational, and from a small beginning in the Philadelphia, PA area with just a few members, it has expanded to include members from all over the world.

There are now sectional nets throughout the United States, mostly on 75 and 40 meters, and a transcontinental net on 20 meters which meets every day except Sunday on 14307.5 Mhz at 1500Z until 1700Z. Check-ins are given a number, but persons needing short time are permitted to take their turn before their number is called. In addition to general comments, each person usually shares a verse from the Bible. The Eastern Section meets on 3.907 Mhz on Mondays and Thursdays at 1215Z, and on Saturdays at 1400Z. Anyone is welcome to participate. You do not have to be a member.

As noted from the description of the nets, it is no longer a missionary organization, so it is referred to as the ARMS Fellowship. The organization publishes a newsletter called THE BEAM twice a year. There is also a website at http://my.tenforward.com/arms. Anyone interested in becoming a member can contact the secretary/treasurer, Ora Gifford, KE7BF for information and applications.

Time to Upgrade! —– Volunteer Examiner Session December 13th!

Just a reminder that our next test will be given on December 13 at the Woodmen building, Rt. 42 Dayton.

Those of you who could upgrade should be giving it some serious consideration. Think of it as a challenge. We will hold a seat for you!

I hope everyone had a nice Thanksgiving and are looking forward to the Christmas holidays.

Wishing you the best.

Gayle Shull KU4XN
Local VE Coordinator

Generator For Sale

Neil Buckingham, WA4KKL, has a very nice clean generator for sale.

It is a Homelite 1700 Watt that runs very good but uses a little oil.

The machine starts quite easily, you just need to keep an eye on the oil level while it's running.

It needs an overhaul probably.

Asking $ 125.00. If you are interested, contact WA4KKL, Neil 896-8699 evenings or Email wa4kklneil@ntelos.net .

Antenna Software — For Free?

I enjoyed the antenna modeling program presented by Gordon Batey, WA4FJC, at the November MARA meeting.

For those that would like to try modeling antennas on the cheap, there are some alternatives available on the web.

As Gordon mentioned, *EZNEC,* the program that he uses, is based on *NEC*, the Numerical Electromagnetics Code.

According to the information in a program I found on the web, NEC was written in Fortran by G. Burke and A Poggio at the Lawerence Livermore Lab in 1980.

Data is input using a text file with specific information in specific columns on specific rows.

If the text file is not written correctly, the program won't run or will produce results that aren't for the antenna you think you are designing.

The output is another text file consisting of a lot of numbers, as I recall. There are no pretty pictures to tell you what is going on.

The input and output modes go back to the days when punched cards were used. It must take weeks to design an antenna using this software.

But today, this same program core is used on the newer antenna modeling programs, with the data input and output improved to make them much easier to use. If you are a glutton for punishment, go find the original program and give it

a try. Remember, the price is right (FREE)!

There is another freeware program available that appears to be similar the *EZNEC.* It was written by Makoto Mori, JE3HHT. The program is named *MMANA*. The English version was translated by Gontcharenko Gray, DL2KQ (also EU1TT).

Some of the wording in the help file (actually the instruction manual) is a little strange, but for the price, you can't really complain.

If you want to play with designing your own antenna on the cheap, give it a try. You can spend a lot of time playing with antenna designs, making modifications and seeing how the results change.

The input and output are very similar to the tables and charts that Gordon showed us at the meeting.

The program is available for downloading at www. qsl.net/mmhamsoft/ mmana/index.htm.
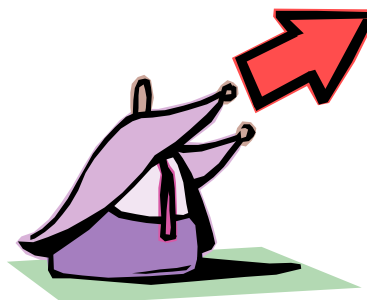
Gerald Nauman, KN4FM

EDITOR'S NOTE: There is a nice "unofficial" NEC website listing many NEC-related downloadable programs. Point your browser to: http://www.qsl.net/ wb6tpu/swindex.html

"Since you failed to provide the proper ULS password on the FCC website when renewing your license, we have changed your callsign to the following barcode:

TALK AROUND THE WORLD WITH YOUR UHF HT!

EchoLink — Now on 443.150 Repeater!   N4DSL-R Node 37200

Echolink is one of the hottest things to hit ham radio since the invention of the microphone!

Echolink is a program for Windows. EchoMac is the MacIntosh version.

These programs are capable of linking repeaters and amateurs around the world using VOIP (Voice over Internet Protocol) technology.

The software is available for download for free (Yes, that's FREE!) at www. echolink.org

All you need is a computer with Windows 95 or better (Win98, ME, 2000, XP), a soundcard, and at least a 28.8k dialup internet connection. Virtually all modern computers have this capability.

Or, you can access Echolink over your ham radio!

If you have a 70cm rig, and are able to access the 443.150 + (131.8 CTCSS) repeater on Lairds Knob 5 miles east of Harrisonburg, VA, no computer configuration is needed.   Echolink is enabled 24/7 on this repeater. Echolink can be accessed by using DTMF tones to control the link. These codes are available to local hams by contacting me at n4dsl@atrs.com

Since the link is enabled 24/7, users from around the world can connect to my node N4DSL-R

Node#37200 at anytime.

When a user, repeater, or link connects, the callsign of the node will be announced over the repeater, stating that they are connected.

Once connected, you can talk to them over your 440 radio just as you would any local user on the repeater.

If you have the DTMF codes, you can connect to a node with the node number or callsign, or you may select a random station, which is often the normal thing I might do, when I am mobile.   I will press in a code on my dtmf pad, and it will connect a random user, and then I give my call and hopefully someone is around and will call me back.

The audio quality will not be what you expect from a local user, but I have experimented and tweaked the audio to the best level possible. The reason for the loss in quality is due to the compression of the audio and narrowed bandwidth to send it over the internet in packets.

If network congestion happens, breakups in audio can occur; usually this only happens with dial-up internet users, because of telephone line quality or trying to do other things online while on echolink.

Echolink uses a 16kbps stream of data, so on a

28.8 modem, it uses a little over half of your bandwidt, Still, you do not want to have other data transferring at the time you are on Echolink, as it may cause packet loss.

My link is connected to the internet via an Adelphia Cable modem, which provides more bandwidth, less lag (shorter ping times) and less packet loss.

In my experience with dial-up and cable modems, I have experienced excellent quality.

There are 4 types of users on Echolink.

(1) An individual on their computer with a microphone and speakers on a standalone pc will be listed on echolink with just their callsign, for example WA4KKL.

(2) A callsign with a –R after the callsign is where a repeater is hardwired to an echolink interface, or a link remotely via a link transceiver, as I am doing, tuned to the repeater pair, my call is N4DSL-R

(3) The -L callsigns, where it provides a link to a simplex frequency.

(4) And lastly there are conference rooms, where you can link multiple repeaters together or users with a common interest.

My link consists of an Icom 207H Dual Band Mobile

and my interface was a kit I built, from VA3TO.

You can check it out at www.ilinkca.com

I started out with a Yaesu VX-5R handheld and a Rigblaster nomic interface, but I have just recently put the new equipment online, to provide improved performance and features.

I hope that you will explore Echolink, as it does provide many new opportunities for reliable long-distance communication over ham radio when HF conditions are poor. It also allows HF-type long-distance ham contacts when you have antenna restrictions, or are a Technician class licensee.

Just think, you can communicate worldwide, while mobile only using a dual band VHF or UFH radio, or operate portable with an HT with no expensive HF equipment or complicated installs!

If you need any assistance in setting up Echolink on your PC, or if you would like help or assistance operating it through the RF link, please contact me at n4dsl@atrs.com

Happy DX'ing!
73,
Jason Armentrout
N4DSL

Hams Do It With Real Class!

Readin', Writin', and Radio!

The 3 R's came alive at Pence Middle School on Oct. 28 and 29. With the now almost traditional Ham Radio indoctrination of 8th grade Pence Middle School students.

Students learned that they can actually have fun with waves they have been studying in science class and use them for an enjoyable hobby and for emergency purposes.

I wish to thank many of our local, willing hams that played a role in this year's classroom demonstration of amateur radio. These hams did a first rate presentation.

These wonderful teachers were: Bob Neimeyer,

W3MMC (how many years does this make?), E.C. Showalter, KG4KUR, John Lasher, N3GLZ, Chris Shirkey, KI4BAQ and Brian Daniels, K4RMY.

Also, a special thanks to Gerry Brunk, K4RBZ, for his fantastic QSL collection and to Chuck Vogan, KD5KA, for materials taken from his book on amateur radio.

Chuck made an excellent effort to personally help out but showed up one day late on Oct. 30th. Chuck, better luck next year!

All aspects of amateur radio were discussed and the students were encouraged to become licensed hams.

On the 28th, the HF bands were in good shape and contacts were made into

Italy, Germany, Belgium, Portugal, Hawaii and Africa. Hard to believe that 10 meters was open into Europe and Hawaii at the same time.

On the 29th, the immense solar flare hit and the HF communications were terrible. We did manage a contact to Colorado.

The students were introduced to local 2 meter repeaters and many talked with hams that were on the air. Thanks to all those that took time to talk to the students. The kids really enjoyed this part of the program.

Public service, ham lingo, licensing, repeaters, frequencies, country prefixes, antenna design, emergency communications, good operating procedures, types of radios, digi-

tal communications and satellite and moon bounce were among the myriad of subjects discussed.

These 8th grade students are the future of our hobby and hopefully we helped sell them on amateur radio and planted the seeds that will sprout our new hams.

One student informed me that he went to Radio Shack to buy a Technician license book but was told that Radio Shack no longer will be handling study guides. Maybe we need to have a long talk with Radio Shack officials. The student was directed to the ARRL web site to obtain the book.

Well we since we got radio covered back to the readin' and writin'!

Ray Ritchie, K4NRA

Thanks to N3GLZ, K4RMY, KG4KUR, KG4BIQ, and W3MMC (pictured) for helping with the Wilbur Pence Middle School Ham Radio Demonstration! Also, thanks to KD5KA for his outstanding introductory materials on ham radio.

Blakey Tales

On Saturday November 8th, we made a trip to the Blakey Ridge electronic site west of Madison, Virginia. The purpose of this excursion was to retrieve the DX packet cluster support node equipment. This equipment was formerly used as backbone to the N4SR cluster. Ken KE4GKD drove his truck to haul us and the gear. Those helping included W4PJW, KB4OLM, N4DSL, KE4GKD and KG4JOF.

The forest road up the mountain was pretty well washed out with lots of ditches and gullies deep enough to bury most vehicles. Ken's truck did quite well with a few exceptions where we drug the rear bumper trailer hitch pretty hard. He was able to bend the trailer electrical connector back into place and the running board on the passenger side had a pretty good scrape on the bottom side but nothing appeared really damaged.

Clint climbed the 60 foot tower to remove the antenna and hard line while the rest of us dismantled the 19" rack mount cabinet and all of the equipment. The lock on the gate across the road had been changed so our key didn't fit any more. This meant that we had to use the hand truck to haul the cabinet out nearly a quarter of a mile. Fortunately it was mostly down hill.

Thanks again to all those who went along to help. "Many hands make light work".

Jeff W4PJW and
Clint KB4OLM

Left: Real communicators use cell phones! L-R: W4PJW, KB4OLM, N4DSL and KG4JOF. Center: Jeff and Billy hand-carried the rack mount down the hill. Right: Jason winding (or unwinding?) the hardline. A good time was had by all!

How to Really Irritate Your Newsletter Editor

Want to really see your newsletter editor get ticked off big time?

Look inside the back cover of this issue of the Monitor. See that renewal form back there?

Ignore it.

Yes, that's right. Go ahead, ignore it. Don't send in your dues on time. Be late. Wait until after the March issue comes out and your editor has removed your name, your email address, your membership status, and other data from his database, his email address book, and other electronic files.

Then, in March, when you don't get a Monitor, send in your dues. Make him have to put you back into the database, back in the address book, and back on the roster. And then ask him to send you a hand-addressed copy of the March issue, too.

Watch him get really ticked. Watch him send your email address to dozens of commercial vendors who are famous for their spam generation systems. Watch him remove your phone number from the national Do Not Call registry. Watch him sign you up for the Columbia Record of the Month club! Watch him ask his co-worker Patrick to write your name and phone number on all the stalls in the bathroom of the Happy Fellows Lounge next time he's in San Francisco.

If you don't want to make him mad, **get out your checkbook right now, and renew your club dues!** Remember, your editor has got your number!

DX Cluster Back In Ship Shape

We are pleased to report the KB4OLM Packet DXCluster at Stuarts Draft is back up to speed receiving spots from the rest of the state and from the Internet via the W4ML Cluster group in Richmond Va.

The KB4OLM Cluster currently has 4 active ports configured into 1 Backbone and 3 User ports.

User Ports: (All Users)

- 144.970 via DXENOB (WA4ZBP-2) on Elliots Knob, West of Staunton.

- 145.670 via SDDX (KB4OLM-2) on Afton Mountain, East of Waynesboro.

- 145.750 via DXHBG (N4ZFQ-1) on Massanutten Peak, East of Harrisonburg.

Note: You may also connect direct to KB4OLM on these frequencies, but you will be competing against the stronger Nodes on the mountain tops.

Backbone: (No Users)

- 440 Mhz via DXAFTN (KB4OLM-1) on Afton Mountain, East of Waynesboro.

What is a DX Cluster? It is a network of radios, computers, TNCs etc. linked to form a Cluster that allows Dxers, and contesters, serious and casual, to see what is happening on the bands before turning on the radio. It's a great way to find the rare DX too!

There are lots of other things that can be done on the Cluster besides DX, like mail, QSL info, postage rates info, and lots of databases to explore, the sky is truly the limit.

There is no charge for using the Cluster, all the Cluster support team asks of you as a user is to use and enjoy this service according to the FCC rules and guidelines. If you wish to help out, your donations will be used to maintain the system to keep it going for all to enjoy.

If there are questions, please ask W4PJW, KB4OLM, or one of the seasoned operators in the area, too many to mention. We will do our best to help you out.

Happy Dx-ing,
Jeff – W4PJW
Clint – KB4OLM

MARA President's Message

We are working hard to put together some interesting programs for the new year. We already have some great entertainment lined up for the Holiday Banquet in January. Captain Junkins from the Harrisonburg/Rockingham County EOC has agreed to be our guest speaker for February, and we have a session lined up on EchoLink for March. Plans are in progress for the April, May, and June programs, too.

Please take a few minutes and complete the renewal form on page 15 of this issue. Let us know what you want to see in the way of programs. What are you interested in? Use the "write-in" space if you don't see your pet interest listed.

And don't hesitate to let me know if you have a special skill or knowledge that you think might be of interest to the rest of the club. I continue to be amazed at the tremendous pool of talent and knowledge possessed by our club members!

I look forward to seeing you all at the December meeting!   — Dave, KD9LA

DX Cluster General Information — Brief Version

CONNECTING TO THE DX CLUSTER
Now that the local KB4OLM DX packet cluster is back up and running, I felt that a brief explanation of some of the basics of connecting to and using the dxcluster were in order. This will be a review for some of you and hopefully a good "how to" for some of those new to packet.

OPERATION:
The DX packet cluster is useful for helping locate the frequency where a DX station can be found, for contesting and also for passing messages on its local bulletin board. KB4OLM dx cluster is connected to the W4ML dxcluster near Richmond via a 440 MHz backbone. The DX cluster system is made up of approximately 130 similar clusters up and down the eastern US. All of the DX cluster stations similar to OLM and W4ML are linked together by backbone radios. This system gives each of us the ability to take advantage of operators all over the eastern area of the US who are tuning the hf bands and "spotting" what they think may be of interest to the rest of us. You can learn to put "spots" into the system too.

EQUIPMENT:
KB4OLM is our local DX cluster located near Stuarts Draft and it basically consists of a computer, software, three - 2 meter radio's and one 440 rig, each with accompanying tnc's, antennas and power supplies. There are four tnc's connected to the computer using a 4 port serial card and running BPQ packet switch.

Supporting access nodes for users are located on Afton Mtn., Elliot Knob and Massanutten Peak. The equipment total including the nodes and the cluster itself is 1 computer with UPS, 8 tnc's, 8 radio's, 7 antenna's (one is dual-band and some are beams), and 8 power supplies. There are also several "blitz bug" lightning arrestors and surge protectors, three towers and several TV type support masts plus some miscellaneous stuff I can't even remember. Quite a system for some "local boys".

GETTING READY TO CONNECT:
A good strong signal path is required to use and stay connected to the system. The supporting nodes and the cluster itself will handle a lot of users at the same time. Just like the Internet, the more users, the slower the throughput. Speaking of that, be reminded that the DXcluster and it's supporting nodes are running at 1200 baud – this is slow compared to the internet so don't expect the same type of response time to your commands.

First of all, it makes no difference whether you are using a conventional tnc or one of the sound card computer based packet units. The process is the same. Check signal strength on 145.67, 144.97 or 145.75 and use the one with the strongest signal.

Setting MYC:
Now before trying to connect, first type MYC and press Enter – this should return your callsign on your screen. If "nocall" appears or something other than your own callsign then type MYC callsign and press enter – where "callsign" = your call. Now try MYC again – it should return your callsign. Note that there is a space after each command. i.e. MYC is a command and there is a space after the command. This holds true for all commands – always put a space after the command and follow the command with Enter (Return).

For the following example I will assume that you have proven that your packet system is working properly. I will also assume that the station you hear the strongest is at DXHBG N4ZFQ-1.

GET CONNECTED:

To connect via DXHBG on 145.75 simplex, type C DXHBG and press Enter. You should see the transmit light activate on your tnc and then the receive light. Your screen should soon show something like "Connected to DXHBG". Once you get this message, type C KB4OLM Enter.

Shortly the message Connected to the KB4OLM DX PacketCluster…. will appear. Wait for the welcome message to display – this will take several seconds and how long it takes depends on several things. 1. How good your path is which will determine the number of retries that it takes for the info. to complete. 2. How many users there are on the frequency you are using. 3. How busy the cluster itself is in sending out "spots" to all the users on the other ports. You get the idea here that using the packet cluster at 1200 baud will be much slower than the Internet.

Now be advised that the first time you log on to the cluster, it will ask you to register by sending your Name and your QTH. Just follow the prompts and type in the info. requested followed by Enter. When the info. you just sent is recognized by the cluster, it will prompt you for the next item. Don't worry about entering your latitude and longitude now – I'll explain that later. When it gets to the point where you get the prompt <yourcall de KB4OLM (date, time)> then you will be properly registered and the next time you log on you will be greeted by the name you entered previously.

You will know that the welcome message has completed when you see something like
          W4PJW de KB4OLM 13 Dec 1810Z>
on a line by itself. This is the prompt which tells you that the cluster is waiting for your next command.

At this point, you can just sit and watch what happens. You will see DX spots come on your screen which show the callsign of the DX station, the callsign of the person making the spot, the frequency where this DX station is operating, the time and perhaps a brief comment. This should all be on one line of text. Try tuning your HF rig to the frequency listed and see if you can hear the station. Be aware that a lot of the spots are coming in through an Internet to DXcluster connection and therefore many of the spots will be made by stations in foreign countries. The chances that you can hear what the foreign station is hearing is slim. Many of the spots however will be meaningful and you should hear the DX station. Note: We may discontinue the Internet spots in the future – your opinion on this decision is welcome.

There are many things you can do with the local DX cluster and as time goes on, I will share some of these with you. There is a bulletin board for messages, many files of information and many databases available from the hard drive at the cluster location. More on this later.

DISCONNECTING:

That's enough for this time – when you are ready to sign off the cluster, send the command B (for bye) and press Enter. Your radio and tnc will go back and forth a couple times and the message "DISCONNECTED" will appear on your screen. You have successfully logged off in the proper manner.

Next time, I'll cover some of the basic commands – in the meantime, try logging in and experiment with the commands. For a list of basic commands send a question mark and press Enter (? Enter) – this will return a list of basic commands. For an explanation on any command send ? command name and Enter - for an explanation of the READ command you would send ? read Enter – remember, when the system is ready for another command you will see <YOURCALL de KB4OLM (date, time)> on a line by itself.

73 happy DXing,
Jeff W4PJW

The Opinionated One: Get Smart

Page 24 of the December issue of Popular Science magazine has a nice article describing advances made in building "intelligent" automobiles. Perhaps you've driven one of these so-called "smart" cars.

These vehicles do everything for you except decide where to go. When it rains, the car turns on its windshield wipers, automatically, without any action required by the driver. When it gets dark outside, the car turns on its headlights. When you go into a skid, the car unlocks its brakes.

Some luxury models go further. When the tires get low, they add air. When the headlights detect an oncoming car at night, the high-beams automatically go to low to prevent blinding the oncoming driver. When you accelerate to 5 mph, the doors automatically lock for you. As you go faster, the steering gets more responsive.

The car takes all these actions by itself, without any need for the driver to do anything.   Pretty soon, you can buy a car which will change its own oil for you and jam its own chewing gum between the back seats for your kids.

The basis of this technology is simple. The manufacturer designs some sort of timer, sensor, or other triggering device to detect a particular condition, and then programs another device to properly respond to the condition without intervention by the driver.

Once again, we in ham radio have been on the leading edge without knowing it. We have had "smart" devices in our hobby for years. And the ham radio manufacturers continue to make things even better. Here are a few of the intelligent ham radio devices which are on the drawing boards or already in the shack — smart devices which will save us a lot of manual effort.

Automatic Contest Preparation Radios: Coming out early next year, these radios will be programmed with the entire year's contest calendar. Each day, the radio will compare the current date (transmitted by WWV) to the contest calendar. It will know when a big contest is coming up, and will prepare itself without you having to do anything. No longer will you have to manually short-out your transmitter and burn up the finals the night before the contest. The radio will do this for you automatically!

Automatic Antenna Tuning : While some radios have this feature today, it is in its infancy. Today's radios sense when you change bands and need to re-tune your antenna. But the truly intelligent radio will automatically select the proper frequency for tune-up! No longer will you have to scan the band to find a rare DXpedition trying to work a desperate ham who has been waiting 37 years for this contact.   Your smart radio will automatically find him and zero-beat the DX frequency, and turn on the carrier full bore, tuning your antenna to perfection in 15 minutes, without you having to do a thing! Expensive tuners will be able to automatically change the transmitter frequency 10 Hz every second or two to circumvent the poor sap's notch filter!

Smart DX Logging Software: This is software designed for rare DX stations. Its purpose is to save the QSL manager a lot of time and effort. The software automatically deletes your call from the log as soon as the DX station sends the log to his QSL manager. This saves the QSL manager the trouble of having to look in the wrong place in the log before he returns your card marked "Sorry OM, Not in Log."

Intelligent Panel Light Bulbs: These bulbs sense when you have spent four hours installing your radio in a console. As soon as you get the console anchored back into position in your shack or vehicle, the bulb will go dark. On the high end radios, the bulbs will be networked together so that the one on the right side of the panel won't burn out until 4 days after you've replaced the one on the left. (Kenwood is the leading innovator of this design.)

Automatic Transmitter Offset: This is common on today's VHF/ UHF radios, but soon it will be a feature on HF, too. This way, after trying 150 times to call the Three Barf Islands DXpedition you discover that your signal has been transmitting up 10 kHz, inadvertently jamming the FCC Enforcement Staffer's Net.

Intelligent Amplifier Tubes: You can import these today from Russia and other exotic places, but they are *really* expensive. When removed from their sockets and placed on the workbench, these tubes can sense the texture of surfaces four feet away (such as the floor under your workbench). Let's say you place the tube on the bench and it senses that the floor is made of concrete and doesn't have a rug on it. The tube will automatically roll off the bench without you having to knock it, jar it, or even bump the bench with your rear end as you bend over to pick up your intelligent pointy-nosed pliers, which automatically jumped off the bench just ahead of the smart amplifier tube!

Intelligent All-Season Antenna Rotator: For years, we have had rotators which would automatically quit working in the wintertime immediately upon sensing the presence of ice and snow. The All-Season model will be able to fail automatically in the spring and summer, too, upon sensing the presence of a 6-inch diameter hornets' nest halfway up your tower! These devices will be networked with your intelligent coax connectors, so that as soon as you replace the rotator and put away your climbing belt and bid goodbye to your ground crew, the connector at the top of the tower will automatically come loose.

Eventually, we will see all kinds of new and innovative applications of this smart technology. We will have in-laws who arrive on your doorstep for a weekend visit, 10 minutes into your favorite contest. We'll see smart soldering irons which can pull their own trigger and burn the tips off your fingers without your having to use two hands. We'll have smart towers which automatically accumulate a half-inch of bird droppings on every rung the morning you planned to adjust the beam. And, of course, someone will invent the long-awaited intelligent glass of iced tea, which …

The Opinionated One

Calendar

December 2: Regular VARA Club Meeting
December 4: Regular MARA Club Meeting
December 5-7: ARRL 160m Contest
December 13: VE Exams Dayton VA
December 13-14: ARRL 10 m Contest
December 25: Christmas
December 31: Straight Key Night

January 3-4 ARRL RTTY Roundup
January 4: Ham Radio Kids Day
January 6: V ARA Club Meeting
January 8: MARA Holiday Banquet
January 11: North American QSO Party CW
January 17: North American QSO Party SSB
January 24-26: ARRL VHF Sweepstakes
January 24: CQ 160m Contest CW

February 3: VARA Club Meeting
February 5: MARA Club Meeting
February 14-15: CQ/RJ RTTY WPX Contest
February 21-22: ARRL DX Contest CW
February 22: Richmond Hamfest
February 28: CQ 160m Contest SSB
February 29: Vienna Hamfest

March 2: VARA Club Meeting
March 4: MARA Club Meeting
March 6-7: ARRL DX Contest (phone)
March 7: Lancaster (PA) Hamfest
March 20: Charleston (WV) Hamfest
March 20: Virginia QSO Party
March 27-28: Baltimore Hamfest

MARA Secretary's Report — November 6 Meeting

The November meeting of the Massanutten Amateur Radio Association was held at Evers Restaurant in Mt. Crawford, the meeting was opened at 7:30PM by the new club president, David Fordham, KD9LA, there were 25 members and 4 guests present.

The secretary's report for the October meeting was accepted as given in the November issue of the Monitor.

The club has a new vice president, Bill Karle, KG4UPN, and a new board member, John Nelson, N3JN.

Two new applications were read, Roger Sack, W4IPD and Mike Reno, KG4OON, they will be voted on at the December meeting.

The MARA holiday party will be held January 8th at Evers restaurant at 6:30PM.

Gerry Brunk, K4RBZ, has been elected president of ARMS (Amateur Radio Missionary Service).

Gayle Shull, KU4XN announced the upcoming VE testing in Dayton at the Woodmen of the World building on Saturday, December 2nd at 9:00 AM.

Gerry Brunk, K4RBZ made a motion that MARA would endorse the idea and provide voluntary labor for the amateur station at VMRC (Virginia Mennonite Retirement Community), the resolution was seconded and passed.

Ray Ritchie, K4NRA thanked everyone that came to Wilbur Pence Middle School to show the students about Amateur Radio.

Kenny Harris, KE4GKD thanked the club for the joint effort with the Bike Festival along with the VARA club.

A card was signed by the club members to be given to the XYL of silent key W4IMS, Bill Edmonson.

Richard Weaver, W3HXH won the 50 / 50 drawing, $14.00 went to Richard and $14.00 went to the club.

The formal meeting was adjourned at 8:07PM.

The program was by Gordon Batey, WA4FJC who presented an excellent program on antenna modeling, Gordon demonstrated a program called EZNEC, plus a handout with other software on antenna modeling.

Todd Harrison, K4TMH
MARA Secretary

VARA Secretary's Report — November 4 Meeting

The **V**alley **A**mateur **R**adio **A**ssociation met at Shoney's in Staunton on November 4, 2003. The President Benny Cook N4BCC opened the meeting at 7:30pm. There were 19 members present and 8 guests, Steve Davis KI4CGI, Ron Burch W4ZEE, John Bottemiller N4SYH, Doug Tippett N8ESW, Charlie Bennetch N4LNU, Mac McGrath KZ1A and Joshua & Jacob Green Sons of Frank Green KE4ASC.
Welcome to our visitors, and we would like to see all of you back next month.

The 50/50 was won by Billy Hooke JG4JOF….Now Billy won't have to go without lunch tomorrow.

Three New Applications:
Steve Davis KI4CGI, Ron Burch W4ZEE and Doug Tippett N8ESW

President, Benny Cook N4BCC and Vice President Kenny Harris KE4GKD will resign as of December 31, 2003. Billy Hooke KG4JOF was voted in as President for the year 2004. At this time we are still looking for a Vice President for 2004.

Alby McCutchen AD4KZ received the Ham Radio study guides and books from ARRL and has divided them between each of the three local libraries. The cost of all the books to the VARA was only $209. This also included a free map and a book that was used like door prizes and the winners were picked using a set of tickets like the 50/50 tickets. The world map was won by Ron Burch W4ZEE and the ticket drawn for the book had Alby's number on it but he gave it to Joshua Green, Frank Green's Son.

Trying a new meeting place for the month of Decenber!!!!
Since our Club is out growing the room at Shoney's our committee of three, Richard Huttinger, Benny Cook and Al Bonck suggested we give ***Kathy's in Verona*** a try. We agreed to try Kathy's for our December 2nd meeting to see what the service is like since they are now under new management. Kathy's in Verona has a room that will seat 100 people. We can have the room from 6:00 to 9:00pm. **This time there will be 25 special buffets, first come first served. Those that come late will order from menu.**

Coming from Staunton on Rt. 11 Kathy's will be on your right in the dip just past the stoplight at Rt.11 and Rt. 612 in Verona.
Coming from I-81 take the Verona Exit 227 to Rt. 11, turn North (right) at the stoplight on Rt. 11, Kathy's will be in the dip on your right.

MEETING:
Gordon Batey WA4FJC welcomes everyone to the Waynesboro Repeater Association meeting on Wednesday December 3, at 7:00pm in the Waynesboro Library located on Wayne Avenue off Main St.

Billy Hooke KG4JOF has the swap shop page completed and Bob McCracken N4JGO has linked it to the VARA Web Page. **This will be for Ham related items only.** You can send a list of items you have for sale, swap or something you would like to buy, to Billy Hooke KG4JOF at: KG4JOF@arrl.net   Also if you have a digital camera or scanner and can send a picture of the item, that would help it sell.
Check it out from the VARA Web Site at: http://www.qsl.net/w4mus/

Butch Washer N5SMQ is the EC for Highland County and Jerry Moats WD4ITN is his assistant. Their ARES Net will be on the Monterey repeater 147.180+ and tone of 100.0 at 8:30pm on the 1st & 3rd Wednesday of the month. They would like to welcome everyone that can get into the repeater to check into the Net.

ADDRESSES!!! If your e-mail address or home address is changed for any reason **YOU** need to notify us so we can make the necessary changes so you will continue to get your newsletter. Also you should update your e-mail address in QRZ and Buckmaster. This is where we look if an e-mail is returned to us.
You can send your e-mail address to: Benny, bennycjr@ntelos.net Ken, klharris@rica.net
Jeff, jmrinehart@yahoo.com Ray, colvingr@rica.net David, fordhadr@jmu.edu

On the sick list:
Dan James W4DLJ is getting around without his walker part of the time but he said he was not sure when he would be able to join us for the Friday lunches.

Marvin Henderson's (KF4WDI) Daughter recently had an operation and is recovering at home. The doctor said all went well with the operation.
Valorie Hancock KB8ZIS had a detached retina near the middle of October and is recovering well at this time.
Ken Harris KE4GKD has had the flu and very close to pneumonia recently, but he said to warn you because he's going to live. Ken has been out and on the go again as usual.
Lets keep these folks in our thoughts and prayers.

David Tanks AD4TJ Needs HELP with the Augusta County ARES Net. Anyone that is willing to be net control and help David out give him a call. The Net will be held on the 146.850 repeater on the 2nd Thursday of the month at 8:00pm. This repeater has a minus offset and a tone of 131.8 when needed.
Mark your calendar and check into the net. Remember without YOU there will be NO ARES NET.

Training classes may be close!
We would like to get training classes started for the Technician level. Anyone interested in helping teach the classes please contact Benny N4BCC, Alby AD4KZ or Richard AA4RH. We need to get some young people interested in ham radio. Listen for any hints that someone may like to learn what ham radio is all about and tell them about the class.

PROGRAMS NEEDED…Richard AA4RH, our Program Chairman, asks for anyone who would like to do a program at one of our meetings to give him a call and get a date set up to present it. It does not have to be HAM related. It could be anything you think the group would find interesting.

The meeting was adjourned at 8:28pm

Submitted by VARA Secretaryt
Ray Colvin, KE4HVR

Membership Renewal Form

NAME:_____ Call: _____

ADDRESS: _____

CITY:_____ STATE:_____ ZIP CODE:_____

HOME PHONE: _____ WORK PHONE:_____

EMAIL ADDRESS: (*print legibly!!*) _____

MEMBER OF ARRL (y/n): _____ REGISTERED MEMBER OF VA-RACES (y/n):_____ RACES TRAINED (y/n):_____

SKYWARN ID (*if SkyWarn trained*) _____ Are you available for Workday Daytime Emergency Callup? (y/n) _____

Do you want to receive the Monitor via PDF Email? Yes/No/I already Do _____

CURRENT ABILITIES & CAPABILITIES: Do you have the technical ability, knowledge, experience, know-how, and the equipment to *reliably* operate the following modes or activities? Check all that apply.

- HF CW slow-speed
- HF CW high-speed (15 wpm and up)
- HF SSB
- HF Mobile from vehicle
- HF Portable or QRP
- NTS HF Message Handling ability
- HF Slow-Scan TV
- Traditional RTTY
- PSK31,
- Other HF digital modes
- Weather Station & Monitoring

- 50 Mhz FM
- 50 MHz — other modes
- 2m FM
- 2m weak signal, AM, etc.
- 220 FM
- 220 other modes
- 440 FM
- 440 weak signal
- 440 fast scan television
- Simple Packet
- DX cluster and/or BBS

- APRS, base WX or digipeating
- APRS, mobile transmitting
- Simple GPRS positioning capability
- EME or Meteor Scatter or JT44
- Microwave (902 Mhz or higher)
- Satellite Operations (analog modes)
- Satellite Operations (digital modes)
- RDF — Direction Finding
- Ham equipment diagnosing/light repairing
- Tower climbing/antenna installation
- PIC programming & circuit design

Other abilities and capabilities: _____

WHAT TOPICS WOULD YOU LIKE TO SEE ON THE CLUB MEETING PROGRAMS? (check all that apply or add more.)

- HF operating and Etiquette
- HF DXing
- Contesting
- QSL'ing methods, hints, tips
- Comparisons of Logging Software
- Mobile, Portable or QRP operations
- NTS HF Message Handling skill
- HF Slow-Scan TV: How To...
- Traditional RTTY: How To...
- Other HF digital modes
- What's on 50 Mhz?
- Logbook of the World

- Weather Stations, Weather Monitoring & Reporting
- Skywarn: What's it all about?
- Ultra-Simple Antenna Designs
- 2m weak signals
- 220 or 440 operations
- Fast scan television: How To...
- Simple Packet: How To...
- DX cluster and/or BBS
- APRS: Getting Started
- Simple GPRS introduction
- EME or Meteor Scatter

- Innovative Mobile Rig Installations
- Microwaves (902 Mhz or higher)
- Satellite Operations (analog modes)
- Satellite Operations (digital modes)
- RDF — Direction Finding
- Emergency Response Kits
- Radio Operations in Emergencies
- Ham equipment diagnosing/repairing
- Tower climbing/antenna installation
- PIC programming & circuit design
- Traders Day, Homebrew Fair
- A modest Valley Hamfest

Other interesting subjects for meeting programs: _____

VARA Renewals: mail with $15 to Jeff Rinehart, 1344 Hankey Mtn Highway, Churchville VA 24421

MARA Renewals: mail with $12 to VARA, PO Box 1882, Harrisonburg, VA 22801

MARA/VARA

c/o David Fordham
131 Wayside Drive
Weyers Cave, VA 24486

Phone: 540-568-3024
Email: fordhadr@jmu.edu

Return Service Requested

MASSANUTTEN AMATEUR RADIO ASSOCIATION, Inc.	VALLEY AMATEUR RADIO ASSOCIATION
President: David Fordham KD9LA Vice President: Bill Karle KG4UPN Secretary: Todd Harrison, K4TMH Treasurer: Sandy Mullins, K4PZC Board (exp 04): Richard Haxton, KC3AN Board (exp 05): John Nelson N3JN **http://mara.ws** MARA meets the first Thursday of each month at Ever's Restaurant on U.S. 11 south of Harrisonburg. Meal starts at 6:30 pm. Business meeting starts at 7:30 pm. **Visitors are welcome.** Dues ($12 per year) should be mailed to: MARA PO Box 1882 Harrisonburg, VA 22801	President: Benny Cook, N4BCC Vice President: Ken Harris, KE4GKD Secretary: Ray Colvin, KE4HVR Treasurer: Jeff Rinehart, W4PJW Program Manager: Richard Huttinger, AA4RH **http://www.qsl.net/w4mus** VARA meets the first Tuesday of each month At Shoneys Restaurant on U.S. 250 east in Staunton. Meal starts at 6:30 pm. Business meeting starts at 7:30 pm. **Visitors are welcome.** Dues ($15 per year) should be mailed to: Jeff Rinehart, W4PJW 1344 Hankey Mtn Hwy Churchville, VA 24421