

The Mt. Vernon Amateur Radio Club



May, 2010 Newsletter

Meetings are held the 2nd Monday of each Month at 7:00 P.M. at the Knox County Chapter of the American Red Cross, 300 N. Mulberry Street, Mt. Vernon, Ohio

Local Ham Community

K8EEN Repeater: 146.790 Mhz (-600 Khz With PL of 71.9 Hz) KD8EVR Repeater: 442.100 Mhz (+5Mhz With PL of 71.9 Hz)



Ham Radio Rocks!

19 Assist EDC Marathon Communications

This year's Earth Day Challenge was a big success. The meet directors cited the efforts of the the local ham radio operators with much of that success. With nearly 400 participants, 300 volunteers and impending thunderstorms the group of 19 amateur operators from 4 clubs were kept busy and on their alert during the 9 hour event.

The clubs participating with communication support of EDC Marathon were Mount Vernon Amateur Radio Club, Knox County (MVARC); Inter-City Amateur Radio Club, Richland County (IARC); Ashland Area Amateur Radio Club, Ashland County (AAARC); and the Christian Bible Fellowship Amateur Radio Club, Licking County (CBFARC).

The following people gave up their Sunday morning and afternoon to assist with the communications for this event, KC8YLD myself and KC87NMS, Austin Godber shared Net Control duties, KD8GRM Steve Barr, N8DPW Dave Weigard, KD8JBF Kris Maki, KB8STK Danny Bailey, KD8GEI Kyle Crawford, KD8LPP Brandon Hunt, KD8HSA Tom Evans, KD8UT Jim Jennessee, W8PEN Don Russell, AC8FV Mark Bisenius, KD8NGT Mat Sturgeon, KD8NGW ReaAnn Bradford, KD8EVR Arlin Bradford, KD8LFH Ann Bradford, KC8YLE Zach McCardel, N8TWM Tom Miller, and KD8FMQ Patty Ernest.

We put in over 200 collective person hours in preparation and race day participation. Because of the high turn out of hams we were able to staff every aid The next meeting of the Mt. Vernon Amateur Radio Club will be May 10, 2010. at 7:00 P.M. in the Red Cross Annex Building, 300 North Mulberry Street, Mt. Vernon, Ohio. No program has been announced for this meeting. There will be a VE test session for all classes of license during the meeting. Contact Mike McCardel, KC8YLD (kc8yld@arrl.net) to preregister for the test session.

Please remember to check into the long running Sunday Night ARES net at 9:00 P.M. on the K8EEN 2-meter Repeater.

Also check out the UHF net on the KD8EVR Repeater. This net runs each Wednesday at 9:00 P.M. and is a social net. Please join us for the fun of it.

Every Wednesday at 5:00 PM, MVARC club members meet at Wendy's, 522 South Main Street, Mt. Vernon, Ohio. Dinner Coordinator Dick Huggins, N8RDH, reports good turnouts for this event. Come share dinner with friends, or make new friends, by attending one or all of these events.

Join MVARC club members every second Saturday of the month for breakfast. Breakfast Coordinator Arlin Bradford, KD8EVR, reports good turnouts for this event.

***The next Breakfast will be May 8, 2010 at 9:00 AM at Allison's Finer Diner, 11587 Upper Gilchrist Road, Mt. Vernon, Ohio ***

station, the trail vehicle, Race control, place two people at each turn around and supply two mobile units.

When a band of thunderstorms came across Knox County early afternoon the NWS issued a Severe Storm Warning for Eastern Knox County including parts of the EDC Marathon Course to the North of Gambier. We were able to successfully track the storm via Weather Defender software and issue updated reports of the storm track to every Aid Station. Based on our information Race Control issued code red alerts for the entire North course on two separate occasions. The storms were very close but never directly over the race area. Our most important concern was lightning.

Of our secondary goals we met with mixed results. We never did get the GPS/APRS digipeater or tracking to work to our satisfaction. We need to work more with this useful technology and learn how to make it operatable quickly. The IARC brought us their communication trailor and set up their portable repeater which served well when communicating with the aid stations North of Gambier. We continue to struggle with communicating with aid station three. This is three years in a row where communications there were spotty. The station is only a couple mile from both AS 2 and Net Control but is in a radio dead zone to the repeater. Typically we needed to relay information in and out of this position. This was also the maiden deployment of MVARC's EmComm 1. EmComm 1 is a converted ambulance that is being converted to a mobile communications center. The set up only needs some minor tweaking and is quite comfortable.

Again I believe this was a great training exercise as well as being a super community service. The effort was topped of with the following email received from the EDC race directors:

Dave and I wanted to thank you again for the work of your team- and please forward this on to them if you have a distribution list!

The radio team is absolutely great- we love having you all there. You provide the information we need efficiently and effectively, and always pleasantly! It makes the day so much easier on our end. I have to say that the radio team was my favorite part of the day- hearing your detailed weather reports whenever I stopped at aid stations between cycling stints was THE BEST. Being a weather junkie, I was really impressed with the detail, accuracy, and clarity of the information flow in both directions.

We really can't say enough how much we enjoy having you there. We will probably tell you some more the next time we see you.

All the best, Emily, Dave and Chris We will see you all next year as we expand our effort in this event, which I see second to only Field Day as a group event

E. Michael McCardel, KC8YLD

Treasurer's Report

May 1, 2010 for Feb 1 to Apr 30, 2010

Balance on 2-1-10:	\$	2881.51
Income: Interest: Dues: Donations:	\$ \$ \$	4.38
50-50:	\$	17.00
First Aid Training Contributions:	\$	84.00
Expenses: None	Φ	0000 00
Balance on 4-30-10:	\$	2986.89
<u>Designated Funds:</u> Year 2005 Repeater Fund: Field Day Fund: Communication Vehicle Fund:	\$ \$ \$	353.94 64.92 540.18
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Barry Butz N8PPF

Amateur radio License Test Monday May 10

We have a couple people pre-registered for the VEC testing session May 10, 7pm at the Red Cross. Because we are for sure a go we will except walk-ins. So if anyone wants to just show up at the last minute we will be ready for them.

May CQ Magazine Articles of Interest:

The recent issue of CQ Magazine has several articles of interest which I believe would be of interest to all hams but new ones especially.

The monthly installment "Learning Curve" presents a great article on di-poles.

"The Ham Notebook" gives incite into emergency preparedness in the article "Are you ready"

CQ announces their 13th Annual CQ WW Foxhunting weekend with several ideas for running just that event.

Finally Frederick O. Maia, W5YI, write an informative down to earth article on Sunspots, space weather and propogation. These are three of the hardest things for new hams (and old timers) to get their heads around. Maia does an excellent job of making sense of these.

CQ is available at newstands like Barnes and Noble and Bordens, and by subscription. The Mount Vernon Library also has a subscription. Current issues of CQ can be read in the library reading room while past issues can be checked out.

E. Michael McCardel, KC8YLD

Near-Space Balloon Mission

Got an email from Craig Butz, KJ6DYP. Craig is Barry Butz's (N8PPF) son and newly licensed ham....

Don, W8PEN:

My dad, Barry, suggested I send you an email with an update of something you might like to include in the club newsletter.

The school I teach at, The Bay School of San Francisco, just wrapped up a 5-day intersession during which regular classes are suspended so students can work intensively on hands-on projects. This year, with another teacher and 12 students, I worked on a near-space balloon mission. Our plan is to launch a weather balloon with a video camera, and temperature and atmospheric pressure probes as payload. Three students spent much of the week working out our tracking systems so we can recover the payload. They built an antenna, a structure to protect it, and figured out how to power and set up an APRS module.

Since five days wasn't quite enough time to finish construction, we haven't set a launch date yet, but hope to send our balloon into the stratosphere in the next 3-6 weeks. My dad will be happy to keep you updated as we get closer to launch. Hopefully some HAMs in Ohio will be able to track our mission online.

Craig Butz KJ6DYP

W1AW Offers Code Practice, Bulletins via EchoLink

From the ARRL E-Letter, April 22, 2010

Audio from W1AW's CW code practices and CW/digital bulletins is now available using EchoLink via the W1AW Conference Server "W1AWBDCT."

The audio is sent in real-time and runs concurrently with <u>W1AW's regular transmission schedule</u>. According to W1AW Station Manager Joe Carcia, NJ1Q, this server is currently at an experimental stage: "Since the server



is located at ARRL -- and uses the ARRL's Internet connection -- there may be an issue as to how many users can connect to W1AWBDCT via EchoLink. The current number of connections is set to 350. If the current system can properly handle these connections without adversely affecting the performance of the conference server, this number will be bumped up higher." All users who connect to the conference server are muted. Please note that any questions or comments should *not* be sent via the "Text" window in EchoLink. Please send any questions or comments via e-mail.

The Doctor Is IN: Window Line and Coax Loss

From the ARRL E-Letter, April 29, 2010

Andy Anderson, AE5EA, of Placitas, New Mexico, has an old three band, three element quad that was built by a company no longer in business. This quad was designed to be fed with coax to a 1:1 balun. Andy told the ARRL's Doctor that he plans on putting the quad back up and was wondering if he can feed it with 450 Ω window line to avoid the loss in over 180 feet of coax.

Here's what the Doctor had to say:

There are two approaches that should work with the window line (assuming the feedpoint's impedance is 50 Ω -- a quad is typically a bit higher).

1. Feed the driven element directly with the window line. At the station, you will then need a wide range antenna tuner that can match balanced loads. This could be a regular unbalanced one with a balun on the output. Note that the impedance will be neither 50 nor 450 Ω , but will

vary widely due to the transformation through the mismatched line, which will be different on every band. The 9:1 SWR with 180 feet of typical window line will result a bit less than 1 dB loss at 28.5 MHz and 0.67 dB on 14 MHz.

2. Use a 9:1 balun at each end of the window line. You may want to use coax (with a coil choke) from the antenna to below the rotator. Then attach a balun (waterproof units are available or you can build your own). Run the window line to (or near to) the station and use another 9:1 balun and coax to the radio. The two baluns combined will have less than 1 dB loss. The matched window line will have 0.2 dB additional loss on 14, 0.26 dB on 28 MHz.

Another thought is to use really good coax. 180 feet of LMR 400 or Belden 9913 coax, for example (both fit standard UHF connectors), will have a matched loss of 1.2 dB at 28.5 MHz, but only 0.8 dB on 20 meters. While not cheap, it probably will cost less than the window line plus two baluns. A section of special "LMR Flex 400" can be used around the rotator.

The performance differences among the various approaches are small. If I were starting from scratch, I think I'd go with low loss coax, based on simplicity and ease of operation.

Thanks Doctor! Do you have a question or a problem? Send your questions via e-mail or to "The Doctor," ARRL, 225 Main St, Newington, CT 06111 (no phone calls, please). Look for "The Doctor Is IN" every month in QST, the official journal of the ARRL.

Radio Activity

By Don Russell, W8PEN

Are there times when you wish you had just a little bit more punch to your signal when using a 2 meter hand held? For example, I was listening in on the communications during the Earth Day Challenge. There



are some spots along the bike path that handheld units have a difficult time getting into our 2 meter repeater. Usually one can find a "sweet" spot by moving around a bit and peaking the received signal up before transmitting. When transmitting, one needs to hold the handheld very steady or the signal may fad into and out of the repeater. Just a bit more power, or a bit larger antenna would no doubt bring the signal into the repeater much better and one would not have to position the handheld so critically.

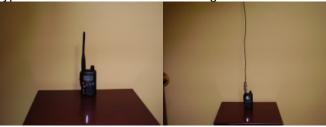
Since it would be difficult to increase the power of a handheld (greater than 5 watts or so) without using an

amplifier and the additional equipment that would be required, the easiest way to boost the signal of a handheld would be by using a larger antenna.

This makes sense and there are many articles available on the internet describing portable and emergency A typical antenna would be the J-Pole antenna constructed of TV type 300 ohm feed-line, which is getting increasingly difficult to find. One can easily build one of these antennas and using a bit of string, locate the antenna up a tree 10 to 15 feet. This would certainly be effective, but it would tie the operator down to one spot and one may even get a weird stare down from other race volunteers. I once had someone ask me if I was one of those ham radio nerds. I replied that while I was indeed a ham radio guy, I was not smart enough to be a nerd. I told them they could call me a nerd wanta be if they desired. The J-Pole up a tree may be the nerdy thing to do. Not that I have anything against such a J-Pole. I believe every ham should have one available when doing an event such as the Earth Day Challenge. I just want to make the point that there are some cons to using a J-pole.

Take a look at your handheld. See that little rubber thing sticking out the top? Measure it. If you are lucky, it is five or six inches long. That my friend is the typical rubber duckie antenna standard on all handhelds. They do a terrific job around town close to the repeater. But they are lacking as they get further away from the repeater. These antennas are very inefficient. Think about it. A standard 1/4 wave ground plane antenna is 19 inches long. Your rubber duckie antenna is at least 13 inches too short on 2 meters to be a good radiator. What to do? Well, years ago (here we go again!) when repeaters were not so abundant I replaced my rubber duckie antenna with a 19 whip made from a coat hanger. This very cheap antenna allowed me to get into the Newark Repeater, the Columbus Repeater, and the Mt. Vernon Repeater, which at the time was located about 5 miles out on New Delaware Road. Mobiles in Mt. Vernon did fine. Handhelds were touch and go back

So, just for this article, I decided to replicate the whip antenna and give it a shot. I decided not to use coat hanger wire. I wanted something that was stiff enough to stay straight under its own weight, but would roll up and fit in my pocket if not needed. I decided to try the typical Number 12 solid house wiring.



HT with rubber duckie HT with home brew whip Which antenna works better?

This was a 15 minute project because I had all the material needed on hand:

- 20 inches of #12 solid insulated house wiring. I robbed some from a 3 wire roll. I used black because I thought it would look nicer.
- 2. One PL-259 male connector. This is the popular UHF connector found on HF ham radios and CB radios (yuck).
- One adaptor to turn your antenna input connector on the handheld into a UHF female connector. Either BNC male to UHF female or SMA male to UHF female.
- 4. A soldering iron and a bit of solder.
- 5. Silicon sealant from local department store.

Measure your wire and make sure it is 20 inches or more. Then strip ¼ inch of insulation off of one end. Tin the bare wire and insert into the PL-259 connector. Solder the wire to the center pin of the PL-259 connector. Trim the wire to 19 inches starting at the back end of the PL-259 connector where the wire comes out from. Squeeze some silicon sealant into the PL-259, keeping the wire centered. Let cure. Plug this antenna into your handheld and give it a try.

I noticed a fair improvement. I sent my handheld to 100 MW inside the house. I could not bring up the local repeater with the rubber duckie. I put my new antenna on and had no problem bringing up the repeater. I tried our signal check mode on the repeater (24*). I was a bit noisy but was in solid. At the one watt level, I was into the repeater with both antennas, but the signal was a bit better with the whip. Just what I wanted.

Next I tried the Mansfield repeater. Could not key this repeater up with one watt and the rubber duckie. Was able to easily bring up this repeater with the whip. Oh, I had walked outside to my deck to perform this test. Unfortunately, I could not get anyone to come back to me to see just how well I was making it. Twenty some miles with one watt and a whip is not bad though.



UHF (top) to SMA adaptor (bottom)

light weight, so it is no more than if you were connecting the radio to a mobile antennas feedline. Probably less. Just be aware of this. Radios with BNC connectors (the older handhelds) should have no problem. Radio with SMA connectors (most newer ones) should be used with caution.

If you want an antenna that would give your signal a little extra boost at times and yet can be rolled up and put in your pocket, you may want to try this one.

Tom Sly, WB8LCD Runs For Ohio Section Manager



In August 2010, the Ohio Section of the ARRL will elect a new Section Manager. I have been nominated for and am actively running to be your next Ohio Section Manager. My name is Tom Sly – WB8LCD.

There are three things you should know before casting your vote for me:

- 1) Who am I?
- 2) What is my vision for the Ohio Section?
- 3) Why am I qualified for the position?

I'm a lifelong resident of Ohio and have been a ham for 43 of my 57 years. I'm married with three adult children, our first grandchild is due right about the time I'll be at the Dayton Hamvention. I graduated from the University of Akron with a degree in Finance. Since graduation I've been self-employed as an Independent Insurance Agent.

First licensed in 1967, I've always been an active ham. My current ham radio activities include QRP, contesting and Dxing. I'm active in my local club and have been an instructor in the club's Technician and General upgrade classes as well as a member of the VE team.

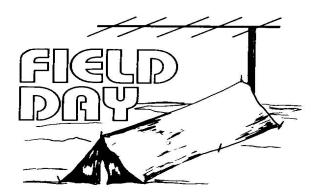
As Ohio Section Manager my goal will be to make the Ohio Section the premier section in the ARRL. I believe this can be accomplished by increasing the number of hams in our Section who are members of the ARRL and by making the Ohio Section stand out as the place where the most new hams are being licensed. I will promote ham radio in Ohio to the general public so they will know that Ham Radio is one of the greatest hobbies in the world! With positive community actions, the public in general will hold us in high regard. In the changing world of Emergency Communications there is much to be done to update and better organize the ham radio emcomm response - incorporating ARES, RACES and MARS into a coordinated effort. I think that the Ohio Section should become a "best practices" leader in demonstrating how this can be accomplished.

I've had a successful business career since I started my insurance agency in 1975. I'm an Eagle Scout and on the board of a regional non-profit organization based in Portage county. I was a founding member and the first president of the Portage County Amateur Radio Service, Inc. (PCARS) - www.portcars.org. In just a few short years PCARS has gone from zero to over 150 active members. PCARS has been recognized for its accomplishments by League headquarters staff and others in the ham radio community. I've had the experience to prove that I can organize and accomplish what I set out to do.

More information is available on my website — www.wb8lcd.org — and I invite you to email me directly at wb8lcd@arrl.net if you have any specific questions or concerns. Please let me know what you think are the important issues we'll face in the Ohio Section in the immediate future.

I hope you will agree, and elect me as your section manager this coming August. In the meantime, get on the air and enjoy the greatest hobby in the world!

73. Tom WB8LCD



Annual Field Day Newsletter Next Month

The Mt. Vernon Amateur Radio Club

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Members are encouraged to send articles pertaining to Amateur Radio, with an emphasis on local activity, equipment reviews, and personal experiences to the Newsletter Editor. Articles are due on the Sunday before the first Monday of the month.

Newsletter Editor: Don Russell, W8PEN

w8pen@arrl.net Phone: 740-397-0249

Stuff You May Need

The following four pages are useful items that hams may require at times. One is a standard log page. One does not have to buy a paper log. Just copy this page and insert into a binder. Great for field trips and vacation, or if you are still resisting the computer age.

Also find the ARRL Radiogram, which most traffic handlers still use. In addition, please find some hints on how to use them.

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RADIOGRAM





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THE AMERICAN RADIO RELAY LEAGUE, INC, IS THE NATIONAL MEMBERSHIP SOCIETY OF LICENSED RADIO AMATEURS AND THE PUBLISHER OF QST MAGAZINE. ONE OF ITS FUNCTIONS IS PROMOTION OF PUBLIC SERVICE COMMUNICATION AMONG AMATEUR OPERATORS. TO THAT END, THE LEAGUE HAS ORGANIZED THE NATIONAL TRAFFIC SYSTEM FOR DAILY NATIONWIDE MESSAGE HANDLING.

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PRECEDENCES

EMERGENCY (Spelled out on form.):

Any message having life and death urgency to any person or group of persons, which is transmitted by Amateur Radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or instructions vital to relief of stricken populace in emergency areas. During normal times, it will be very rare. On CW/RTTY, this designation will always be spelled out. When in doubt, do not use it.

PRIORITY (P):

Use abbreviation P on CW/RTTY. This classification is for a) important messages having a specific time limit, b) official messages not covered in the emergency category, c) press dispatches and emergency related traffic not of the utmost urgency, d) notice of death or injury in a disaster area, personal or official.

WELFARE (W):

This classification, abbreviated as W on CW/RTTY, refers to either an inquiry as to the health and welfare of an individual in the disaster area or an advisory from the disaster area that indicates all is well. Welfare traffic is handled only after all emergency and priority traffic is cleared. The Red Cross equivalent to an incoming Welfare message is DWI (Disaster Welfare Inquiry).

ROUTINE (R):

Most traffic in normal times will bear this designation. In disaster situations, traffic labeled Routine (R on CW/RTTY) should be handled last, or not at all when circuits are busy with higher precedence traffic.

Notes: These precedences are not meant to prohibit handling lower level traffic until all higher levels are passed. Common sense dictates handling higher precedence traffic before lower when possible and/or outlets are available.

HANDLING INSTRUCTIONS

HXA	(Followed by number.) Collect landline delivery authorized by addressee within [] miles, (If no number, authorization is unlimited.).
HXB	(Followed by number.) Cancel message if not delivered within [] hours of filing time; service originating station.
HXC	Report date and time of delivery of the message back to the originating station.
HXD	Report to originating station the identity of station from which received, plus date and time. Report identity of station to which relayed, plus date and time, or if delivered, report date and time and method of delivery (by service message).
HXE	Delivering station get reply from addressee, originate message back.
HXF	(Followed by a number.) Hold delivery until [date].
HXG	Delivery by mail or landline toll call not required. If toll call or other expense involved, cancel message and send service message back to originating station.

PUNCTUATION characters are not used in the text except as follows:

- /: The slash, "/", is used to separate characters within a group, as in 304/BA. Since the "/" is part of the group it does not qualify as a separate group for the check. Although usually not used as a group by itself (a space on the left
- X: The letter "X" used to denote a period. The letter "X" is never used as the last group of the text. The "X" is a separate group and IS counted for the check.
- R: The letter "R" is used in place of a decimal in mixed figure groups, as in 7013R5 (7013.5), or 146R670 (146.670). Since the "R" is part of the group it does not qualify as a separate group for the check. (The inclusion of the "R"

TEXT

The text contains the actual message information authorized by the person for whom the message was originated. Note that the amateur does not originate messages for a person without permission from that person!

The text is entered in section 3 of the message form. (When transmitting a message, the text is separated from the preceding address, and the signature to follow, by the use of the word "BREAK" on voice, the prosign <BT> on CW, to allow the receiving operator to know its beginning and end. BREAK and <BT> are not counted as groups.)

The text is divided into word "groups", five or ten to a line for easy counting, and is usually limited to 25 words or less. Example:

ARL	FORTY	SIX	Χ	DO
YOU	WANT	THE	304/BA	EQUIPMENT
QUERY	THE	SIX	DASH	В
TYPE	IS	NO	LONGER	AVAILABLE
Χ	CU	ON	7013R5	73

Note the use of "X", "QUERY", "/", "DASH", "R" and spelled-out numbers for the ARRL numbered radiogram "ARL FORTY SIX" (See the following section.). The check is ARL 25

COUNTING WORD GROUPS FOR THE CHECK

The number value to be entered in the "CHECK" is the total number of groups in the text.

An easy rule to remember about counting word groups: ANY GROUP OF ONE OR MORE CONSECUTIVE CHARACTERS WITH NO INTERRUPTING SPACES, WITH A SPACE BEFORE IT AND AFTER IT, IS COUNTED AS ONE GROUP

PHONETIC ALPHABET

All operators should memorize the phonetic alphabet and number pronunciation, and be fluent in spelling groups using phonetics. Practice off the air by sending text to yourself with phonetics.

Α	ALFA	М	MIKE	Υ	YANKEE
В	BRAVO	N	NOVEMBER	Z	ZULU
С	CHARLIE	0	OSCAR	1	ONE
D	DELTA	Р	PAPA (PA-PA')	2	TWO
E	ECHO	Q	QUEBEC (KAY-BEK')	3	THREE (TREE)
F	FOXTROT	R	ROMEO	4	FOUR
G	GOLF	S	SIERRA	5	FIVE (FIFE)
Н	HOTEL	T	TANGO	6	SIX
I	INDIA	U	UNIFORM	7	SEVEN
J	JULIETT	٧	VICTOR	8	EIGHT
K	KILO	W	WHISKEY	9	NINE (NINER)
L	LIMA	Χ	X-RAY	0	ZERO

Membership Form

Club dues run from Jan. 1 until Dec. 31 and are collected during the last quarter of the year. You can mail in the dues to the address below or bring them to a meeting. Dues are prorated for new members at the time of application. Visit our Web Page at www.mvarc.net

Dues Schedule: \$12 regular

\$10 for second member in the same family, for those over 65 yrs. of age, and for those living outside Knox County

Mt. Vernon Amateur Radio Club, P.O. Box 372, Mt. Vernon, OH 43050

Name	Call-Sign						
Street							
City	StateZip Code						
Phone Number	License Class						
ARRL Member (Y/N)E-N	lail						
Extra Donation (Optional)							
Members are entitled to a free MVARC E-Mail address. Would you like one? NoYes							
If yes please enter password							
Other Comments:							