

The Open Feed Line

A Publication of the Michigan Amateur Radio Alliance (MARA)

Volume 12, Issue 2 Friendship, Community service & Advancement of the Hobby April - June, 2003

Upcoming Events

May 14th - MARA meeting - see page 2 for details.

May 24, 25, & 26 - Operation Care Coffee Stop - see page 3 for more details.

May 31, 00:00Z to June 1, 23:59Z - Great Lakes QSO Party - sponsored by Michigan DX Association. See page 6 for more details.

June 6th - GRARA meeting at American Red Cross.

June 7th - IRA Swap in Hudsonville - see page 7 for more details.

June 11th - MARA meeting - see page 2 for details.

June 13th - 6:30 PM - VE testing at the Red Cross.

June 14th - 10:30 AM - Lowell ARC meeting.

June 14th - Dance to benefit the family of Willie Van Splintern WB8ZUH - sponsored by MARA - see page 3 for more details.

June 28 & 29 - Field Day

July 4th - GRARA meeting at the American Red Cross.

July 5th & 6th - Operation Care Coffee Stop.

July 9th - MARA meeting - see page 2 for details.

July 11th - 6:30 PM - VE testing at American Red Cross.

July 12th - 10:30 AM - Lowell ARC meeting.

July 10, 11, 12 and 13, 2003 - Fifth Annual ARPSO Family Outing in Lupton, Michigan. See ARRL for details

August 1st - GRARA meeting at American Red Cross.

August 8th - 6:30 PM - VE testing at the Red Cross.

August 9th - 10:30 AM - Lowell ARC meeting.

August 30th, 31st, and Sept. 1 - Operation Care Coffee Stop.

September 6-7, 2003, Great Lakes Division Convention, Findlay, OH in conjunction with the 61st Findlay Hamfest. See ARRL for details.

September 13th - Grand Rapids Area Hamfest. Sponsored by GRARA, LARC, and MARA.

September 19-21, the 22nd Annual ARRL and TAPR Digital Communications Conference, the big one, <http://www.tapr.org/dcc>

October 31-November 1, 2003 the Michigan State ARRL Convention will be held at Holland, Michigan. There will be dinner and an awards banquet on Friday with a Wouff Hong Friday night. The swap and forums will be held on Saturday. See ARRL for details.

Michigan Repeater Council Meetings- Sundays at 1:00 PM- June in Tawas--Sept. in Lansing--Dec. in Kalamazoo / Battle Creek - location and dates to be announced.

If there is an event that you would like to see included in this column, contact the editor.

WHY SUPPORT ARRL?

Imagine if ARRL could double in size in a few short years! Imagine the great projects that we could take on! It is possible, and it's all up to those of us that believe in Our League, the Affiliated Clubs and the membership that is the heart and pulse of our clubs and ARRL.

Make no mistake about it, when we speak of ARRL or The League, we are talking about a national membership association specifically for amateur radio operators, for all of us. We are the ARRL and our support makes it what it is.

Founded in 1914 by Hiram Percy Maxim, today ARRL is the largest organization of radio amateurs in the United States. ARRL is a "not for profit" organization that promotes interest in amateur radio operation and experimentation, but also represents radio amateurs in legislative matters affecting our very existence.

ARRL Headquarters employs a staff of 120 people to provide us with needed services. I have been a member for over forty years and I had no idea of the professionalism and dedication that exists in the headquarters complex. I was amazed when I was able to see, with my own eyes, the work being done for all of us within those walls. It is truly awe inspiring and you must really see it to understand the passion with which these men and women put forth for our benefit.

Many of our clubs and other membership organizations have been losing members recently. We are dis-associating ourselves with others. More and more, as a society and as individuals, we are missing out on the camaraderie and a sense of pride in belonging to an organization that is unique to us as individuals and based on our skills and interests.

How can we correct that? We can start with the first step, getting involved in service to the public. It takes more than simply joining to make us a part of Amateur Radio's public service team. Belonging requires action such as commitment and training.

Let's take a look at the Basis and Purpose of Part 97, that regulates the amateur radio service. The very first item states, **"Recognition and enhancement of the values of the amateur radio service to the public as a voluntary noncommercial communications service, particularly with respect to providing emergency communications."**

Continued on page 3, column 1.

The Open Feed Line

Publisher

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The Open Feed Line is published quarterly. It is the official journal of The Michigan Amateur Radio Alliance.

You may freely reprint in whole and unaltered, any material in the Open Feed Line, but you must credit the Open Feed Line, the original author, and the original publication.

Everyone is encouraged to submit original articles, preferably related to Amateur Radio, to the editor. The deadline for submission is the end of March, June, September, and December.

Membership information

The Michigan Amateur Radio Alliance, an American Radio Relay League affiliated club, was created to provide opportunities for friendship, community service, increasing technical knowledge and upgrading our skills in the hobby of amateur radio. Annual dues to MARA are \$20. Family memberships are an additional \$5. Dues for persons aged 70 and over are \$5.00. Membership is free to students under 21. Memberships expire on December 31 and club dues are due on January 1st. MARA membership is open to all interested persons.

Please send change of address information and membership applications to the club secretary.

Great Lakes Award

Send inquiries regarding the Great Lakes Award to the Awards Manager: Larry Dells KC8KVR c/o MARA
P.O.Box 670
Comstock Park MI 49321-0670
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Field Day Chairperson

Open

Operation Care Chairperson

Open

Super Swap Chairperson - MARA

Open

*Some of these offices are still open. If you'd like to volunteer, contact one of the board members and let them know what your interested in.

Club activities

MARA holds their weekly 2-meter Net, every Thursday, at 8 PM on the MARA W8USA repeater, 145.230 MHz -600Khz PL. 94.8. All amateurs are welcome to participate.

MARA holds their monthly meetings on the 2nd Wednesday of the month at 7:30PM, at the Steepletown Building, located on the SW corner of 5th street and Davis NW, in Grand Rapids. This site is handicap accessible, with additional parking on the West side of the building. All persons are welcome to attend our meetings.

MARA is currently holding breakfast at 9:00 AM every Saturday morning at Bono's restaurant, located on the east side of Plainfield Avenue, about 2 blocks north of Leonard Street. All persons are welcome.

WHY SUPPORT ARRL?

Continued from page 1, column 2.

These words tell me that, as a condition of my license, I am responsible to the public, the citizens of my community, state and nation, to provide my voluntary services by providing communications when needed. Most of us are blessed to have a very unique talent in our ability to provide communications. We can best do that by volunteering our skills to the amateur radio emergency service.

To provide this service, we must first have a basic understanding of what is expected of us and how to effectively provide a much needed service. To gain this understanding we must first be trained in the types of services and procedures to be used as well as understanding the organization itself.

If you act soon the second step, training, won't cost you anything but your time thanks to the grant to the ARRL from the Corporation for National and Community Service (CNCS). This federal grant to enhance homeland security already has funded the training and certification of hundreds of amateurs through the ARRL's Amateur Radio Emergency Communications Course. As a result, the Amateur Radio community is better prepared than ever to heed the call whenever and wherever a natural disaster or other catastrophe may strike. This grant is tangible evidence that the federal government sees us as partners in the effort to ensure the security of our nation and its citizens.

There is another step that you can use to explain to others why you are volunteering your time to public service. It is a short, six minute video entitled "*Amateur Radio Today*", produced by ARRL. This should be used in promoting Amateur Radio to non-amateur audiences throughout the country. Take the time to watch it. (Check the ARRL Web site for availability.) You will swell with pride as you watch and hear one of the most respected and recognized Americans of all time extol the virtues of Amateur Radio, which means so much to all of us.

But don't stop there. In the words of Dave Sumner K1ZZ, ARRL Executive Vice President, "As you watch the sailboat in the closing scene, imagine that it represents Amateur Radio and think about where you are on the screen. Are you helping trim the sails? Are you helping maintain a steady hand on the tiller? Or are you out of sight beneath the surface, perhaps a barnacle, not impeding progress very much but just along for the ride while others do the work?"

We have been blessed with many talents and skills and now is the time to use them in the service to our communities. Let's not just go along for the ride, but instead provide direction and purpose to our served agencies through ARES. Keep your local radio clubs strong by providing support and participation. (Continued next column)

While we are at it, with all the pride in being involved in the only failsafe communication service in the world, let us all look to a friend or colleague and convince them that League membership is important to keep the wheels in motion and to keep amateur radio safe for our posterity. We cannot afford any more cuts in services provided to us due to lack of funding. It is up to us to provide for amateur radio, so that it's future is insured in the years to come.

Promoting ARRL and amateur radio is not the sole responsibility of the Headquarters Staff. They do a fine job from all aspects but that is not enough. We must all accept responsibility to sell ARRL Membership and promote all the good that we have all derived from ARRL, The National Organization for Amateur Radio. Please join me in getting the message out.

73, Dick Mondro W8FQT

Vice Director, ARRL Great Lakes Division.

MARA is holding a dance!

MARA is holding a dance to benefit the family of Willie Van Splintern WB8ZUH, who passed away in March. The dance will be held at St. Adalbert's Benevolent Aid Society hall, on the ground floor. The hall is located on the northwest corner of 5th St. and Davis, on the city's Northwest side. The dance will start at 7:00 PM on June 14th. Donations will be taken at the door, or advanced tickets may be purchased from Dan N8NIJ or Larry KC8KVR. Bring your significant other, if you can.

KA8ZAZ--SK

One of our founding members, Peter VanDuiwendyk KA8ZAZ, passed away recently. Peter had walked the earth for over 80 years, and was a ham much of that time. He was a fine gentleman, a writer, a poet, and spoke several languages. We'll see you later, Pete. 73.

Operation Care coffee stop

MARA will be conducting the Operation Care Coffee Stop at the Rest Area near Rockford on the 3 big holiday weekends again this year. If you can spare 4 hours to take a shift, you may find it to be a rewarding experience. Your duties are to make sure there is coffee and orange drink available, and make sure the cookies and apples are set out. The travelers often express their appreciation, especially in the wee hours of the morning. For Memorial Day weekend, we will begin operating on Saturday around noon, and continue operation until late Monday evening.

MARA and GRARA share in this event, and the proceeds are divided.

You can sign up for a shift on the MARA web site, or just contact one of the club officers.

Help Wanted

Barry County Amateur Radio Association is having an annual river cleanup on May 17th.

Anyone interested in the above event should contact Christine Nabkey at cjnabkey@k8sn.org or call 616-676-2310.

Yes, you can operate HF

For those of you who are antenna-restricted, or equipment-restricted, there is now a way for you to enjoy HF operating from your computer. You can operate a very capable HF station via the Internet. Just run a search on "Remote Base". There are getting to be more of these stations all the time. Of course, there are provisions to keep unauthorized persons from using this equipment. If you are not licensed for HF, you can try Open Radio Room, for details, keep reading. Anyone can also try HF at Field Day also, which is always the 4th full weekend of June.

More on the IRA swap

Dave Clark W8DO is expected to be available for QSL card checking at the IRA Swap. He is one of the very few ARRL-authorized card-checkers in Michigan. If you get him to check your cards, you do not need to send them away to get them validated. He might also be available at the SuperSwap in September. Thank-you, Dave, for providing this service.

On-Air Events

Sunday mornings about 8:30; 6-meter AM Roundtable; 50.400 MHz.

Wednesday nights at 7:15pm - Open Radio Room at the GRARA station located in the lower level of the American Red Cross. Contact Tom N8DGD

May 31, 00:00Z to June 1, 23:59Z - Great Lakes QSO Party - sponsored by Michigan DX Association. See page 6, column 1 for more details.

Every Wednesday night at 8:00 PM, the Kent County Amateur Radio Emergency Services group (KCARES) holds a net on one of the local 2-meter repeaters. Access is also provided on 70 centimeters. You do not need to be a member to participate.

Every Thursday night at 8:00 PM, MARA holds a net on 145.230. You do not need to be a member to participate.

At long last

MARA has been formally granted a coordination for the repeater pair that we have been using. Thank Goodness.

A New Newsletter

In the last newsletter, I wrote an article that mentioned some of the fine things that Hams do for the community. I really should have also mentioned the web maintainers and the newsletter editors. Of course, the list of people who deserve mention just goes on and on.

I was telling Richie K8JX about my oversight, when I let it slip that I would like to try being an editor myself some day. Well, "some day" came very quickly.

We are all very grateful for his many years of service as editor. Up until April of this year, Richie was still building and maintaining the club's website, which is not only important to a radio club, but is also very time-consuming, and a lot of work. Thanks, Richie.

We now have a new web maintainer; Eric Babcock KC8WGI. He earned his license in April, and promptly jumped in with both feet. We are confident that Eric will do a fine job. Thanks, Eric.

If you haven't guessed, I will be editor for at least this issue. Recently, the club voted to publish the newsletter quarterly. So we will certainly try to do so. I have never done anything like this before, so I'll need your help.

First and foremost, I need criticism. (I can't believe I actually said that.) But really, do you think the font is too large, or too small? Do you think we need more technical and educational material, or less? What do you like to read about? Do you like 2 columns, or 3? Etcetera. Opinions will vary, but we are looking for a general consensus.

Not only that, but we also need you to send in articles to be published, equipment for sale, or whatever. Many of you have unique talents, experiences, opinions, and/or knowledge. Please consider sharing these gifts by writing an article. We will try to print everything that is submitted, within reason. I certainly don't wish to fill the newsletter all by myself. If writing is not one of your talents, well, that is what we have an editor for. Just let us know if you want it edited, or printed as is.

I have no idea how many changes will be made, it all depends on the comments we get. We are going to try a 2-column format, instead of the 3-column format that you may be accustomed to. We are also going to try e-mail delivery, for those who want it that way. Please let me know. I have to admit, I always liked getting it in the mail, but hey, we're saving trees. It seems that paper newsletters are almost a thing of the past.

We are including the Membership Information/Application Form on the last page again, just below the roster. If there is any personal information that you don't want to see included in this newsletter, circle said information, and mail it in. I hope you enjoy your newsletter.

73 Jim ki8jd

The Repeater Council

As I see it, the Michigan Area Repeater Council (MARC or MIARC on the internet) is the most important Amateur organization based in the Lower Peninsula.

At this point in time, any Amateur can pay \$10, and get full member privileges. I encourage you to do this, while you still can. Who knows, you may want to vote someday. Recently, a by-laws change was proposed which would have restricted full membership to repeater owners/Trustees. They would be the only ones to be able to vote or hold office. The average ham would still be able to pay dues, get the newsletter, and speak at a meeting.

Most hams will immediately think, "That isn't right." Even the FCC has stated, "*It is essential that repeater coordinators respond to the broadest base of local amateurs and consider the concerns not only of repeater owners, but also of those users of spectrum affected by repeater operation. Their authority is derived from the voluntary participation of the entire amateur community; their recognition must be derived from the same source.*"

But let's explore the issue further. The first question should be "why do they want to do this?" I will try to present the pros and cons of the reasons.

The first reason that I heard came from the private repeater owners, and goes something like this, "*I spent all this money, and I don't want pee-wee ham telling me what to do.*" Pros: Sorry, but I can't think of anything good to say about this. Cons: Without going into too much detail, many (most?) hams find this to be against the spirit of Amateur Radio, and not for the greater good.

The second reason I heard goes like this, "*Why should we have average hams, some of which can't even program their own radios, making highly technical decisions which affect the repeaters that we all use?*" Pros: There is some truth to this. Cons: It is slighting to the average ham, and exclusionary. In addition, being a repeater owner/Trustee does not show technical ability.

The third reason involves control. (Not too long ago, a large club rallied many of their members to show up at a council meeting in an effort to control the outcome of the voting process.) "*Why should a large local club be able to control the Council?*" Pros: It doesn't seem right to allow this type of action. Cons: Any group could do it.

There are other reasons to support such a change in membership criterion, some of which involve the very purpose of the Council's existence. Maybe that would be a good place to start, to define the purpose of the Council in the 21st century. What was true 20 years ago might not be true today. Written Amateur history is a little hard to come by, but I've been told that at one time, the FCC coordinated the repeater frequencies. Obviously, they have since delegated this task to the Amateur community. **(Continued next column)**

Let us not forget that all Amateur frequencies above 50 MHz are set aside for the use of all Amateurs. So it only stands to reason that we should all have input on how they are used. This is a statement, not an opinion; "*Their authority is derived from the voluntary participation of the entire amateur community; their recognition must be derived from the same source.*" It is obvious to me that the primary function of the Repeater Council should be to represent the interests of the majority of hams. Our approval is the base for the FCC's recognition of the Council. Without our approval, either implicit or tacit, the Council is toothless.

What worries me the most is that even with a Council currently open to all hams, only 16 people from all of Lower Michigan showed up to vote on the by-laws change. And this was a hot issue. Why aren't more people involved in these quarterly meetings? Is it because of driving distance? The Sept. meeting will be held in Lansing and the Dec. meeting in the K-zoo/Battle Creek area, which is not a long drive from Grand Rapids. However, the March meeting was held near Bay City, and the June meeting will be held in Tawas City. Look up Tawas City on your map!

The fact that the attendance is so poor suggests that the average ham is not being adequately represented. What could be done to improve this situation?

I am sure that these traveling meetings stem from good intentions. However, I believe that it would be better for the Council, and thus Amateur Radio, if the meetings were held in a location most central to the majority of Lower Michigan hams, such as Lansing, or a place somewhat north of Lansing. If the meetings were held in the same place every time, it seems like more people would be able to commit to becoming active in the Council. The attendance of members and officers might be less sporadic. We could say, "I can make that trip 4 times per year", or not.

Let's get back to the membership issue. When I first heard about the proposed change, I was firmly against it. However, as I explored the issue, I started going over to the other side, at least a little bit. Other councils do it both ways. While looking at the by-laws of other councils, I noticed important points lacking in our proposed change. For instance, I have a WWII CW repeater in my garage. Under the proposed change, I think I would qualify as a repeater owner. Also, it seems that excluding anyone from holding office serves no useful purpose. Those with the right to vote should also have the right to vote for whoever they wish, regardless of whether that ham represents a repeater or not.

Continued on page 6, column 1

The Repeater Council

Continued from page 5

It seems obvious that this proposed change needs some refinement. Maybe that is why it got voted down by a margin of 13 to 3 at the March meeting. However, the issue is not dead.

The membership change also needs a better sell. The first 2 reasons given in this article are not conducive to selling this change. If, however, the reason for such a change was to truly represent the community better, more support could be found.

This surprised me; I could support limited voting rights, under certain conditions. To sell me, voting rights would have to be limited to holders of coordination (Sponsors), not repeater owners. To help prevent abuse, no extra votes would be allowed for multiple coordinations. To help represent the average ham, Sponsors would be given extra votes proportionate to the size of their membership. To help prevent abuse, extra votes would be subject to review by the Council, if the validity of the organization were questionable. For many reasons, Sponsors could designate any ham to be their Representative, either on a permanent or temporary basis. Temporary Representatives would need to bring a signed Letter of Authorization to the meeting. Representatives could represent more than one Sponsor. (Most Sponsors could find someone willing to make the drive.) Non-voting (Associate) members would be allowed to run for office. For Officer elections or published motions, such as a by-laws change, Sponsors could mail in a signed paper ballot, which would be held until made viewable at the next meeting.

I believe these changes would encourage involvement, and in turn, give the average ham better representation.

This is just one ham's opinion. Regardless of what happens, I wish the Council all the best.

73, Jim ki8jd

(This newsletter has always been open to opposing views. If you have one, send it to the editor. As always, please indicate if you would like it edited or printed as submitted.)

The Great Lakes QSO Party

Starting Friday May 30th, at 8:00 PM local time, the Michigan DX Association will sponsor the second running of the Great Lakes QSO Party. Many MARA members, including myself, have been involved with the MDXA since it's inception.

The Great Lakes QSO Party is a locally grown contest, and it would be nice if local Amateurs would show their support by participating.

One thing that I learned about QSO parties is that the name is misleading. QSO parties are traditionally county-hunting contests. But hey, a contest is a contest, even if you aren't a county hunter.

Continued next column

If you have ever thought about giving contests a try, this would be a great one to start with. But don't misunderstand me; there will also be some very serious contesters out there.

The contest will be on the weekend following Memorial Day, so some people will be contesting from their favorite camping spot. I plan to operate from either Newaygo or Lake County, and as such, I hope to have people looking for my contact.

Further information is available on the MDXA's web site. The MDXA's web address is <http://mdxa1.org/>. If you still have questions, please feel free to contact me.

73, and have fun, Jim ki8jd

ARRL Affiliated Amateur Radio Club;

Please announce to your club membership the following information about the Michigan Training Net QMN TN:

The Michigan Training Net, QMN TN operates each Tuesday and Thursday evenings at 7:30 PM on the QMN net frequency of 3663 KHz. The net provides newcomers experience with CW traffic net operation at slow code speeds.

Listen for the net callup of QMN TN QNI. When ready to check in, send one letter in your callsign such as "S". The net control will respond in kind. Then send your callsign and QRU ("I have no traffic"). If it is your first time in the net, control will probably ask for your name.

After attending a couple of net sessions, participants will be mailed a package containing information about net operation and traffic handling.

Stan Briggs, K8SB QMN TN Manager
K8SB@ARRL.net

Fill-in

I needed something to fill in the rest of this column, so I went shopping on the Internet. I didn't find anything that would fit here, however, I ended up on the ARRL Michigan Section web page. Debbie Kirkbride KA8YKK, the Michigan Section Manager, has been doing a great job, as far as I am concerned. You can visit 'her' page at <http://www.arrl.org/sections/?sect=MI> There is much good information on this page. Thank-you, Debbie!

Larry KC8KVR gave me some articles from World Radio Magazine (March and April issues). I liked the article about Public Service, but didn't like the article about "user rights". The author said we didn't have any. Can you say "Dark Side"?

I did not get any original submissions for my first issue. With the exception of "Why Support ARRL?", and the above article, I wrote all the articles myself. Maybe I'll at least get some rebuttals for the next issue.

GRAND RAPIDS, MICHIGAN

I.R.A. ANNUAL HAMFESTIVAL

West Michigan's Largest
Hamfest & Computer Fair

Saturday, June 7, 2003.....8 A.M. until it's over.

Convenient location with great facilities at the spacious Hudsonville Fairgrounds. It's bigger and better every year! 14 miles west of Grand Rapids, two miles north of I-196 exit 62.

HUGE INDOOR FACILITIES with CONVENIENT ACCESS and FREE PARKING. OVER 22,000 SQUARE-FEET INDOORS, 8' tables for sellers and dealers, \$8 ea. Friday night set-up available after 7 P.M. or 6:00 A.M. start on Saturday. Trunk sales spaces, 10' @ \$6 ea. CAMPING available, \$10 fee. Showers and electricity available for camping. Plenty of electrical outlets available inside and outdoors. Camping and table & space rental not an admission to Hamfest; tickets are required. All reservations with SASE please. Reservations held until 8 A.M. Saturday. Food and drinks available in comfortable indoor sit-down eating facilities. Children under 12 years admitted free accompanying an adult. Handicapped parking and access.

- FAMOUS "ROADKILL-CHILI" POTLUCK FRIDAY EVENING
Bring a dish to pass and join-in the fun @ 7:00 P.M. after helping with setup. Hamfest tickets will be available for purchase.
- FOUR MAJOR PRIZES PLUS DOZENS MORE!
- MICHIGAN / FLORIDA HAMS MEET-9:00 A.M.
- VINTAGE HAM EQUIPMENT,
MILITARY RADIO EQUIPMENT AND
ALTERNATIVE ENERGY EXHIBITS
- VE AMATEUR EXAMS - 10:30 A.M. START
All walkins. Technician, General and Extra Class. Please bring original and a copy of your license, any C.S.C.E.'s with some form of photo ID and a check made out to "ARRL / VEC".

**DEALERS: BRING YOUR
HAM EQUIPMENT, COAX,
COMPUTER EQUIPMENT,
SOFTWARE, ALTERNATIVE
ENERGY EQUIPMENT, WIRE,
BOOKS, PARTS, JEWELRY,
SWEAT-SHIRTS, CAPS, ETC,
TO SELL.....BE THERE!**

**HAMS: BRING YOUR USED
EQUIPMENT TO TRADE OR
SELL.....BE THERE!**

**COMPUTER HOBBYISTS:
BRING YOUR EXCESS
HARDWARE, SOFTWARE,
BOOKS, ETC., TO TRADE
OR SELL.....BE THERE!**

Write for table reservations to:
Independent Rptr. Assoc., Inc.
562 92nd Street S.E.
Byron Center, MI 49315

TICKETS: \$5.00 ea.
Tables: \$8.00 ea.
Trunk spaces: \$6.00 ea.
Camping fee: \$10.00

INFO: Call Kathy at (616) 698-6627 after
4 P.M. (E.D.S.T.) for info / reservations.
Check out the IRA Web-site at:
www.w8hvg.org for more info.

TALK-IN ON 147.16 LINK-SYSTEM

1/4 WAVE ELEMENT IS
1/4 " BRAZING ROD

70 CM
J- POLE
ANTENNA

KC8EKJ

JOHN PINKERTON

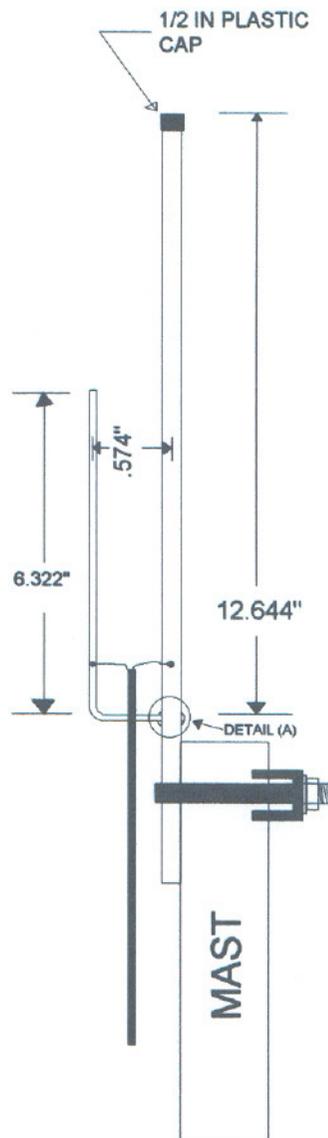
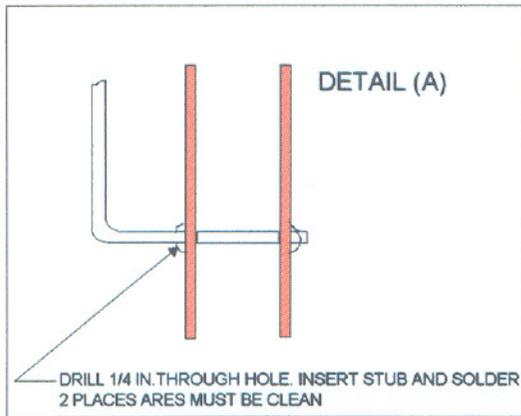
CUT FOR A CENTER FREQ
OF 444.040

1/2 WAVE ELEMENT IS

1/2 " HARD DRAWN COPPER TUBING

DESIGNED & DRN. 5/25/97

THE COAX, SHOULD BE SEALED AT THE POINT WHERE IT HAS BEEN OPENED WITH SILICONE SEALANT. THE CENTER CONDUCTOR OF THE COAX. IS SOLDERED TO THE LONGEST ELEMENT. THE BRAID IS SOLDERED TO THE STUB



TO ADJ. THE SWR MOVE THE
FEED POINT UP OR DOWN THE .6127"
IS ONLY A STARTING POINT

THE FEEDPOINT IS .6127" FROM THE TOP OF THE
J-SECTION. THE .574" DIM. IS MEASURED FROM
THE CENTER LINE OF THE ELEMENTS.