

OFFICERS

- George Noble KK7FM
President
- Kevin Sanders KØKDS
Vice-President
- Kirk Nelson WL7CLI
Secretary
- Bill Claypool NUØQ
Treasurer

BOARD

- Bruce Brumm KCØZMT
- Ron Hobbs NØXWI
- Chuck Hoveland WØIBG
- Dean Madsen NØXR
- Dennis O'Brien KAØDOS
- Craig Rose KCØYHU

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DMRAA 2011 HAMFEST

The Des Moines Radio Amateurs' Association is proud to present the 2011 edition of the DMRAA Hamfest on April 23, 8 a.m. to 1 p.m. in the Elwell Family Food Center at the Iowa State Fairgrounds. Admission is \$6 and children under 12 are free.

The Hamfest has relocated this year to a larger facility, which means more merchandise, more booths, and more fun! Radio City and D&L Antennas will be on hand, and reservations are still coming in from other vendors! "We're really excited to be moving into a bigger space for the Hamfest," DMRAA President George Noble KK7FM said. "Attendees will be pleased with the amenities the venue offers and it will be easier to move around. We can offer more tables to more vendors now, too."

The DMRAA Hamfest has been relocated this year to a



newer and larger venue to accommodate the Hamfest's growth. The DMRAA Hamfest will be held this year in the Elwell Family Food Center, a recently-renovated 15,000-sq. ft. climate-controlled facility with ADA ac-

cessibility, convenient restrooms, and a full-service concession stand will be provided during the Hamfest by Campbell's. A virtual tour of the new Hamfest location can be found on the DMRAA's website at <http://www.dmraa.com>.

At the Hamfest, attendees will also be able to meet and speak with ARRL Iowa and ARRL Midwest officials, see the Polk County ARES communications trailer, and attend various seminars on amateur radio operating.

Flea market tables can be rented for \$20 and all subsequent tables are \$10 each. Payment is due upon entry of the Hamfest venue. Cash and checks are accepted (sorry, no credit or debit cards). Checks can be made payable to the Des Moines Radio Amateurs' Association. Tables

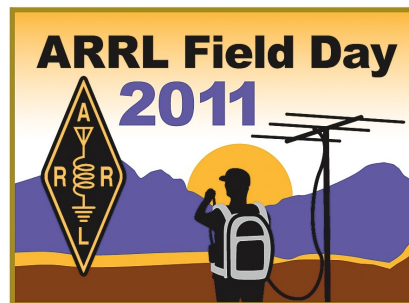
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New Field Day Location!

The DMRAA and ARTS clubs announce that the location for the 2011 Field Day activities has changed. The committees involved have attempted to find a location closer to the metro area to encourage more participation from members and showcase Amateur Radio to the general public. The location will be at Camp Dodge in Johnston. The exact location and directions will be posted on both club's websites, dmraa.com and artsiowa.org. The site offers a spacious parade field for antenna setup (or marching if desired) as well as an enclosed building

for operating if the weather will not cooperate. The Polk County ARES trailer will also be on hand. Field Day is an annual event sponsored by the ARRL to encourage

Hams to get out from the shack and operate from remote facilities similar to what might be encountered in an emergency. While it is not necessarily a contest, records are maintained and points are awarded for a variety of operating classes. The event this year will be a class 2a station with a GOTA (get on the air) station. More information on Field Day can be found at arrrl.org/field-day. Setup begins at 9:00am Saturday June 25th. The event starts at 1:00pm and ends Sunday, 24 hours later.



www.arrrl.org



Come enjoy the fellowship

DMRAA meetings are the 4th Tuesday of the month. Be sure and mark your calendars!

Upcoming Meetings

April 26th 7:00 PM

**Plymouth Congregational Church
42nd & Ingersoll
Waveland Room**

Larry Vandewater, NØBKB, will be giving a presentation about the technology behind repeater linking for April's DMRAA meeting. Everybody is welcome. The presentation begins at 7 p.m. at the [Plymouth Congregational Church at 42nd and Ingersoll](#) in the Waveland Hall.

Recent Meetings

The 2011 season of DMRAA general meetings were off to a great start with a meeting on January 25, presented by Kirk Nelson WL7CLI on the topic of packet radio. At the meeting, Kirk went over the advantages of packet and digital radio, the differences and similarities, and the history of the technology.

The January meeting was followed by the annual storm spotter training on February 22. The training session was presented by National Weather Service Warning Coordinator, Meteorologist Jeff Johnson KCØOGL. It was the first training session from the Des Moines NWS of 2011 and attracted over 80 attendees from inside and outside the amateur radio community. Preceding the training session, the Mid-Iowa Skywarn Association (MISA) held its annual business meeting where net procedures and repeater statuses were reviewed and the MISA board was elected to another term -- Kevin Sanders KØKDS (President), Jeff Johnson KCØOGL (Vice President), and Tom Reis NØVPR (Secretary & Treasurer). Training review materials can be found on the Des Moines NWS website at <http://www.weather.gov/dmx>.

Despite the threat of severe weather and tornado warnings, the general meeting on March 22 went on as scheduled with Bob Jimmerson

Future Meetings

George, KK7FM is looking for meeting ideas and presenters. Please feel free to make suggestions and offer to help with a presentation.

You can Help?



Are you interested in helping the club? There are many ways you can help. Assisting with an event, taking a few pictures or even writing a piece for this newsletter.

Our May meeting includes the election of officers and board. If interested please contact an officer or board member so you can be considered for nomination.

KA0ØMM giving a presentation on the newly-erected 10-meter repeater. Bob went over the efforts of securing locations for the 10-meter repeater, the hurdles the repeater group faced in getting the repeater on the air, the technology used on the repeater, and the characteristics of 10 meters. The repeater is currently transmitting on 29.520 MHz, no tone, with a -100 kHz shift.



Giving back through community service

Scott Kirstien
 NØOOD
 Polk County ARES EC
 515 202-2244(cell)
 n0ood@arrl.net

Polk County ARES Meetings
 Polk County EOC at
 1907 Carpenter Avenue
 Des Moines, IA



Polk County ARES



Big news for Polk County ARES! Our Public Service Event season is now in full swing, and we are moving forward. OK, maybe that isn't big news, but it is the current state of affairs. As I write this, we are still waiting for the Iowa Repeater Council to provide us with a coordinated pair of UHF frequencies for a repeater to be located at Iowa Methodist Medical Center. While this information has not been a "secret" I have been trying to wait until the process was complete before announcing it to the world. The repeater was donated by an organization in town as they migrate to narrowband operations, the cabinet has been donated by a local ham – who has also been able to share his technical expertise and wise counsel with me. The location at Methodist is the site where we have set up NØVPR's portable repeater for events downtown. Special thanks to the folks at Methodist for their willingness to allow this to be a permanent install. More information will

be forthcoming when I hear back from the IRC. Our meeting in February was attended by approximately 30 folks, who are now NIMS Compliant. Thanks to Jon Davis, KCØUSS for being our instructor for that evening. The April meeting will be on April 18th at 7:00pm – again at the Polk County Emergency Operations Center, 1907 Carpenter in Des Moines. (Note: this is a change from the original schedule.) The training that evening will be on message handling, whether you are an old hand or a newbie, this class will be an important addition to the NIMS Compliance training we had in February. Another item of note; we are working with Polk County Emergency Management to facilitate a better way of letting ARES members know of Activation. We are in the process of collecting phone numbers for each ARES member, and are planning on using the county-funded "Code Red" system. This system will make auto-

matic calls to each number in our group, and a recorded message will provide further details to individuals. If I do not have a current phone number for you, please let me know. For what it's worth, the best way to contact me regarding activation, events, or general ARES questions is via my cell phone. The number is (515) 490-7414. No question is too silly, and if I don't know the answer, I will find it out. Also below is a list of the events we have for the season. Please make a note of them on your calendars, and let me know which of them you are available to help with.

73, Scott

Wanted
 Looking for a decent used 220 Mhz mobile rig.
 Please contact Ron Hobbs NØXWI at rwhobbs@aol.com

ARES MEETING DATES

April 18, 2011
 July 11, 2011
 October 10, 2011



2011 ARES Events

NDMS Drill - May 18 or 19
 MS Walk - May 21
 Jordan Creek Duathlon - TBD
 Dam to Dam June - 4
 Copper Creek Triathlon - TBD
 MS-150 Canelles per SEC
 ARRL Field Day - June 25 - 26
 Flatland Youth Festival
 July 17
 Big Creek Triathlon - TBD

State Fair Parade August - 10
 Asthma Walk - TBD
 Head of Des Moines Rowing Regatta September - 24
 Get Your Rear In Gear 5K run
 October - 1
 Des Moines Marathon
 October - 16
 Living History Farms Cross Country Race November - 19

2011 DMRAA Calendar

DMRAA Calendar 2011

**Repeater Linking
Larry Vandewater
NØBKB**

26 April, 2011
Plymouth Congregational
Church
42nd & Ingersoll
Des Moines
7:00PM
Waveland Room

General Meetings and Events

26 April, 2011
24 May, 2011
23 April, 2011, Hamfest
24 May, 2011
28 June, 2011
26 July, 2011
23 August, 2011
27 September, 2011
25 October, 2011
**22 November, 2010
Chili Feed / Auction**
**7 December, 2010
Christmas Party**

Board Meeting Dates

1 February, 2011
1 March, 2011
5 April, 2011
3 May, 2011
7 June, 2011
5 July, 2011
2 August, 2011
6 September, 2011
4 October, 2011
1 November, 2011



**You now have the option
of paying for up to 3
years when renewing
your membership in the
DMRAA.**
1 Year = \$20
2 Years = \$40
3 Years = \$60

**See Bill Claypool NØUQ
for details.**

President's Soapbox

This should be my last presidential column. It is probably a good thing because I have already exhausted my inventory of interesting things to say in this column.

I have enjoyed serving the club as president. It has been a privilege, and I look forward to continuing my service however I can. Unfortunately, changes at work will probably dilute my focus on the club. Fortunately, there is no shortage of good people to pick up the slack. I think we have a very strong Board, which would have functioned admirably without me, and will continue well into the future. I think a strong foundation was set before me. I have really been carried along. I am pleased with the things that have developed on my watch although, as I said above, the credit should be widely distributed. The change in leadership, I hope, will allow the club to continue to grow and develop.

I want to recommend service. Participation has been a consistent theme in my ramblings here, and here it is once again. I hope I can speak for all the Board members to say that it has been fulfilling and none of us is eager to be replaced. I think we all recognize that a regular turnover in the Board is healthy for the organization and we would be

happy to stand down if there were many vying for these positions. The first reaction of most of us, when asked about running for the Board, is/was, "Not me!" For me, and I think most people, it comes from fear: fear of being left holding the bag with a big job and no help; fear of looking bad when people expect more from us than we can deliver; fear of not knowing enough. I am not sure these are currently valid fears in this club. I think we now have a culture of participation on the Board. I don't believe anyone has been left with too much to do. There always seems to be someone willing to step up and help whoever takes on a big project. I have always had as much help as I needed. I am only stepping down because I think my daytime job is about to become too demanding.

The fear of not meeting expectations does not seem to have been real, but we couldn't have known that without taking the chance. Instead, I have often felt that I was more supported by the membership than I personally deserved. If there are members whose expectations are not being addressed, you should seriously consider running for the Board. I didn't think I knew enough about radio, and I didn't know enough club members. That turned out not to matter. (I know a lot more members

now.) Each of us brings something unique to the Board. One of the best parts of the adventure has been seeing how it all comes together for the common goals. I wish our politicians in Washington could be as creative in merging their differences for the national good.

So, if we can get beyond our (mostly irrational) fears and participate (there's that word again), there is a lot of growth and fulfillment to be had. One of the things I had hoped to do, but have not completed, was to transition to committees (like Field Day, Hamfest, etc.) made up of regular club members rather than mostly Board members. This would accomplish two things. First, for the busier committees, it would allow for many hands to make light work. Second, I think it would create a pool of participants who would be less intimidated about being asked to run for the Board, allowing for a very healthy regular turnover in the club leadership. At the next couple of meetings, I intend to put out sign-up sheets for various committees and ask you to get involved. Please put your name down. I think you will get more out of it than the club will. Then go out and PARTICPATE!

73,
George, KK7FM

**Even if
you're on
the right
track, you'll
get run over
if you just
sit there!**
Will Rogers



**George Noble
KK7FM**



Have you checked into a net lately? →

ARES Nets serve several purposes

- *Operator training*
- *Training of Net control operators*
- *Passing formal traffic*

Please check in!

Area Nets

AMES

Sunday	147.240+	7:00pm	Story County ARES Net
Wednesday	147.375+ t 114.8	9:00pm	Cyclone Amateur Radio Club

BOONE

Sunday	146.850-	9:00pm	Boone County ARES Net
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DES MOINES

Sunday	146.940- t 114.8	8:00pm	Central Iowa ARES Net
Sunday	146.940- t 114.8	follows ARES net	Central Iowa technical Net
Sunday	146.820- t 114.8	9:00pm	ARTS Net
Thursday	146.940- t 114.8	7:00pm	Polk County ARES Net

(note) The Des Moines Sunday night nets are available thru the Shehdahl 147.075+ t 114.8 repeater

MARSHALLTOWN

Sunday	147.135+ t 141.3	6:00pm	CIRAS Net,
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PERRY

Monday	146.610- t 114.8	8:00pm	Dallas County ARES Net
Monday	146.610- t 114.8		follows ARES net HARC Net

WEBSTER CITY

Monday	147.015+	7:00pm	Hamilton County Radio Club Net
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STATEWIDE NETS

Monday—Saturday	3,970	12:30pm & 5:30pm (6:00pm summer)	Iowa 75 Meter Traffic Net
Sunday	3,970	5:30pm (6:00pm summer)	Iowa Traffic and Emergency Net
Monday	3,990.5	5:30pm (1st Monday of the month)	Iowa RACES Net

Amateur Radio Testing Sessions

Des Moines 1:00pm

04/23/2011 9:30am
DMRAA Hamfest

05/15/2011 1:00pm
07/17/2011 1:00pm
09/18/2011 1:00pm
11/20/2011 1:00pm

Registration starts at 12:30 PM (no admittance after 1pm)

Location: Johnstone Supply Classroom (2nd floor)
11000 Justin Drive
Urbandale, IA 50322

Contact: Rick Allen ACØCFL
(515) 795-2162

Ames 7:00pm

Wednesday, June 22, 7:00
location TBA

1304 Howe Hall, Iowa State campus

Contact:
George Oster, NP2N
515-233-3535

Boone 9:00am

06/11/2011
08/13/2011
10/08/2011
12/10/2011

Time: 9:00 AM Location:
Kruck P&H Warehouse Office,
807 6th St., Boone, Iowa
Talk-In: 146.850

Contact:
Steve NØNEU
(515) 432-4006

Buy, Sell, Trade or Help

Have questions?

Fell free to send questions to the club.

Email info@dmraa.com

Look at what you could take home from the DMRAA Hamfest



Time to Eat?

Hungry and looking to meet local hams? Friday's at the City Buffet on University (next to Toys R Us) a group of hams meet for lunch. This is an informal meeting and provides a

n excellent opportunity to pass information while enjoying a nice selection of Chinese cuisine. The group usually arrives around



11:45 and breaks up at about 1:00. All are welcome, including family members.

Caution! Considerable amount of amateur radio topics will be discussed.

FOR SALE

I have a 40' HBX Rohn Tower. TA33 Jr Mosley. Cushcraft 10 Element Twist FM/SSB . Ham III Rotor & Control for Sale in Ankeny. BO -Need dismantled on site. Tony Caponigro WBØTWW More info 515-964-2653

Perhaps you'd like to help the club.

Please contact Ron Hobbs NØXWI if you'd like to help at the Hamfest.

If you'd like to help on Field Day, contact Bruce Brumm

Contact George Noble, KK7FM if you have an idea for a program or would like to be a presenter.



Hamfest, continued from page 1

can be reserved online at the DMRAA Hamfest website at <http://www.dmraa.com/hamfest/> until April 22.

VE testing for all classes will be available in the nearby Maytag Family Theater. Testing fee is \$15. Contact Rick Allen N0CFL with any questions via e-mail at n0cfl@arrl.net. Registration begins at 9 a.m., and no testees will be admitted after 9:30. Testing will begin at 9:30 and end at approximately 11:45.

Each paid admission receives one raffle ticket for door prizes. This year we are offering the Yaesu FTM-350R, a dual-band VHF/UHF mobile radio that offers APRS operation, Bluetooth capabilities, 1w on the 220 MHz band, and more! The FTM-350R is valued at \$589!

We are also offering a Wouxun dual-band portable radio as door prizes! After recently being

introduced in the United States, Wouxun radios have been gaining a faithful following for its durability, reliability, and access to a wide range of inexpensive accessories.

Gift certificates to the ARRL's online store will also be given out as door prizes. These gift certificates can be used on any merchandise in the ARRL's online store, including books, kits, videos, clothing, and more!

Talk-in will be available on the club's W0AK Des Moines repeater, 146.940 (negative shift), PL tone 114.8.

For full details on the DMRAA Hamfest, table reservations, and the downloadable flyer for the Hamfest, visit the DMRAA Hamfest website at <http://www.dmraa.com/hamfest/> or contact a DMRAA board member.



Board Meeting Minutes

Board Meeting Minutes

Minutes – February 2011

The meeting convened at 7:02 p.m. with all elected officers and board members in attendance with the exception of Bill Claypool, NUØQ and Bruce Brumm, KCØZMT.

Guests in attendance:

None.

Review of Last Meeting Minutes:

The January Board Meeting minutes were read and approved.

Old Business:

Hamfest: WBØW will not be able to attend. Topics were presented for possible forums. Also discussed was inviting more vendors.

Board replacements: Discussion was held on how to recruit board replacement and how to get more members involved on the club committees.

Field Day: It was decided to reserve Jolly Boat area at Big Creek but also look at other possible locations.

New Business:

Insurance: The insurance company is requesting that the books be audited and the treasurer be rebonded. Bill Claypool was not present to give a detail report of what is required.

Board Meeting Location: Dean Madsen suggested the board look at changing the location of the board meeting. It was suggested other location could be researched.

Loaner Radios: Dennis O'Brien suggested the club look at obtaining some HT radios as loaners for new Hams to help get them on the

air. It was discussed that it would be better to have a list of Elmers that would mentor and loan equipment rather than the club purchasing and maintaining radios. Kirk Nelson suggested that a welcome packet be put together to help not just new hams but hams new to the club.

10 Meter Repeater: Craig Rose asked if the DMRAA would be willing to sponsor the new 10 meter repeater in the Repeater Directory since the club was allowing it to use the club call sign. Ron Hobbs motioned that the club sponsor the repeater and it was seconded by Chuck Hoveland and was passed.

Treasurer's Report:

No report

Subcommittee Reports:

Program: February's program will be by the NWS.

Communication/PR: The clubs web site has been updated and Hamfest information added.

Hamfest: Bruce Brumm has the door prize radios.

Field Day: Under Old Business

Education: Waukee Community Education class is set start on February 24th.

Repeaters: The 2 new radios have been installed and are up and running at the Lutheran Hospital Packet site.

Membership: No report

Christmas Party: No report.

Chili Feed/Auction: No report.

Awards: The Bob Evans George Noble is researching.

Other Business: No report.

The meeting adjourned at: 9:02 p.m.

Board Meeting Minutes

Minutes – March 2011

The meeting convened at 7:00 p.m. with all elected officers and board members in attendance with the exception of Kevin Sanders, KØKDS and Dennis O'Brien, KAØDOS.

Guests in attendance:

None.

Review of Last Meeting Minutes:

The February Board Meeting minutes were read and approved.

Old Business:

Field Day Venue: The Big Creek Park Ranger has not responded to the clubs reservation request for Jolly Boat. Alternate sites are to be looked into. The State Fair Grounds is not available that weekend.

Treasurer Bonding: Bill Claypool reported that both the clubs insurance and bonding has been paid. He also reported that the bonding company is requesting an audit of the books. Both Bruce Brumm and Craig Rose are looking into finding a person to conduct the audit.

Board meeting venue: Kevin Sanders was not present to give a report and is still looking for a location.

New Business:

Nominating Committee: The Nominating Committee members where appointed, Tom Reis, Ron Hobbs, Bruce Brumm. The nominated names are to be presented to the club in April and voted on in May at

The Des Moines Radio Amateurs Association board meets monthly in the community room at The Windsor Heights HY-VEE 70th and University Club members are welcome to attend.



Ham Radio in the 21st Century

Board Meeting Minutes Continued

the annual meeting.

Spring Event: Having a special event/meeting was discussed. George Noble suggested that we have Antenna Fest on a weekend to explain, see and work with different types of antennas. Craig Rose was going to research what would be a good date.

Treasurer's Report: \$6,823.90 but does not reflect resent membership dues received.

ARES-NØOOD: Scott Kristein was not in attendance at the meeting.

Subcommittee Reports:

Communication/PR: The clubs web site has been updated and Hamfest information added.

Hamfest: All on track. They are still looking for a replacement for WØBW.

Field Day: Under Old Business. Ron Hobbs is researching cost of Porta-Potties.

Repeaters: All working. The antennas at Lutheran Hospital are in need of maintenance. One antenna is not working for an unknown reason.

Education: Waukee Community Education meet and great went very well. There were 8-10 prospects that showed up. Members interested in helping out with the classes are always welcome.

Program: March's program will be presented by Bob Jimmerson on the new 10 meter repeater. April's Program will be presented by Larry Vandewater on Repeater Linking.

Communications/PR: No report

Membership: It was discussed creating a "Welcome" packet for new Hams and new to the area

Hams. It would include Repeater frequencies, clubs, and other resources. It was decided that a list of club members willing to loan out equipment would be created rather than the club buy loaner radios.

Awards: The Bob Evans awardee was selected and the award will be presented at the DMRAA Hamfest.

Christmas Party: No report.

Chili Feed/Auction: No report.

Other Business: No report.

The meeting adjourned at: 8:45 p.m.

Board Meeting Minutes

Minutes – April 5, 2011

The meeting convened at 7:00 p.m. with all elected officers and board members in attendance with the exception of Chuck Hoveland, KDØSSH.

Guests in attendance:

None.

Review of Last Meeting Minutes:

The March Board Meeting minutes were read and approved.

Old Business:

Hamfest: The Repeater Group plan on having a forum and possibly the ARRL. To date 40 tables have been paid with most being done through the web site. D&L said they will be attending and the ARRL will be also. Setup is scheduled to begin Friday from 1 to 8 PM. All the door prizes are in hand.

Field Day Venue: The location has not been set yet. Lowell is still working on Jolly Boat, they have new personnel and requirements that he is working through one issue is they now require a \$50.00 fee. Ron Hobbs is checking with

Camp Dodge and a few other sites as back-ups. It was decided to be a 2A station.

Nominations: The committee is still working on the list.

New Business:

Midwest ARRL club competition: It will be from 3/15/2011 to 7/15/2011.

Treasurer's Report: \$6,603.90

ARES-NØOOD: Scott Kristein was not in attendance at the meeting.

Subcommittee Reports:

Hamfest: All on track. They are still looking for a replacement for WØBW.

Field Day: Under Old Business.

Repeaters: All in working order.

Education: Waukee Community Education going well. There are 7 in the class and testing is scheduled for 4/21/2011. Planning is in progress for another fall class in Des Moines.

Program: April's Program will be presented by Larry Vandewater on Repeater Linking.

Communications/PR: The web site has been updated again. Hamfest tables can be reserved online and Hamfest emails will be going out to approximately 800.

Membership: No report

Awards: No report

Christmas Party: No report.

Chili Feed/Auction: No report.

Other Business: It was suggested we have an antenna party weekend event this August were people can show off their home brews and different types of antennas. People could also bring in ones they need assistance with.

The meeting adjourned at: 8:40 p.m.

*The Des
Moines Radio
Amateurs
Association
board meets
monthly in the
community
room at
The Windsor
Heights
HY-VEE
70th and
University
Club members
are welcome
to attend.*

New Life for an old CW KEY!

Larry Zimmer
KAØFTO

Do you have one of those inexpensive CW Keys lying around that does not work so well? The following is what I did to make mine better.

Figure 1 is my finished product. But first the movable arm contacts were intermittent because there was a poor connection on the sides as there was no adjustment so therefore there was some side to side movement and as the key aged there was not always a good connection.

Figure 2 was an extra connection to the front of the movable arm contact and then down through a hole in the rear as shown in Figure 3.

I just happened to have a scrap piece of thick plastic that was about ½ inch thick but was not

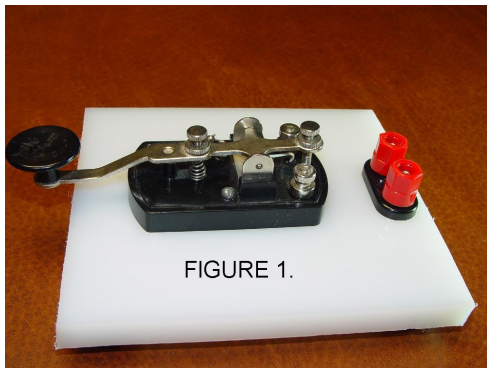


FIGURE 1.

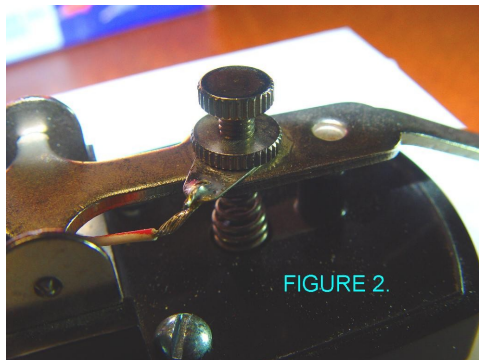


FIGURE 2.

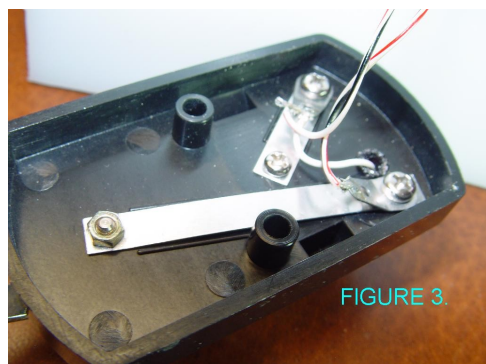


FIGURE 3.

square. Cutting plastic seems to have a trick. Place masking tape around the part you are cutting, with a SABER SAW, and for some reason it works better and will keep from melting the plastic around the blade and freezing the blade.

Make your mark on the MASKING tape where you will cut. Use the finest tooth blade you can find. I think I used 24 or 32 per inch. The rubber feet had to be glued after roughing up the plastic under the feet.

Because the original connections on the key were just round nuts you had to wrap the wire around the post and try to tighten and I did not have good luck with that.

Figure 3 & 4 shows the extra wiring from the bottom of the key and then feeds down through a small hole in the White plastic base and feeds underneath to the bottom of the 3 way binding post at the rear.

binding post with a hole so you can feed a wire

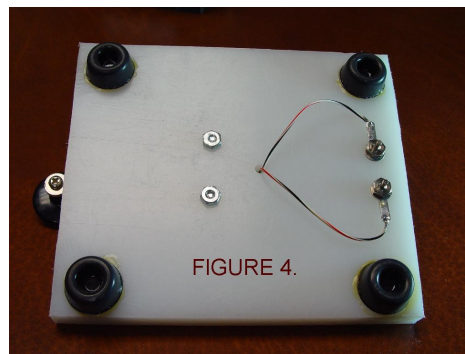


FIGURE 4.

through and then tighten them down. You could of course use the BANANA JACK at the top.

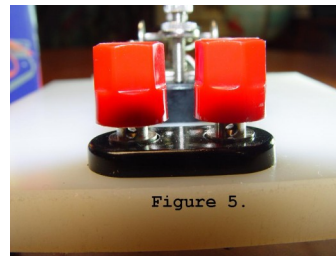


Figure 5.

What did it cost? Since I had everything the only item that I can remember was the basic key purchased locally for about \$4.00. The plastic I purchased by the pound at Van Horn Plastic but I think they went out of business. I have not checked any of the other Plastic companies to see if they sell scrap. The 3 way binding post I purchased so long ago that I do not remember what they cost.

No, it is not a Bencher but cost much less. I seem to remember seeing this basic key offered by MFJ for about \$14.95? Check the latest HAMFEST you never know what you might find.

HAMFEST

2011

IOWA STATE FAIRGROUNDS - Elwell Family Center Building

Don't Miss It!

CQ CQ CQ

ADMISSION:

Adults: \$6.00

12 & Under: FREE

- Talk-in: 146.940 tone 114.8
- Free Parking
- Handicap Accessible
- Snacks and Drinks
- Convenient Restrooms



The Des Moines Radio Amateurs Association is pleased to sponsor our annual Hamfest.

Browse the wares of the featured vendors. Sell your unneeded gear for extra cash! Find that perfect addition for your rig.



Saturday,
April 23rd, 2011
8:00 am-1:00 pm

VE TESTING

Held in the nearby Maytag Family Theatre

Technician, General & Extra exams are offered

Testing Fee: \$15.00

Registration: 9:00 am

Testing: 9:30 am-12:00 pm

* No one will be admitted for testing after 9:30 am

FLEA MARKET

Tables: \$20.00 (1st table)

\$10.00 (ea. additional)

Contact Ron Hobbs, N0XWI
for advanced reservations
at rwhobbs@aol.com

* No Tailgating Allowed!



Featured Vendors

D & L Antennas

A great location that's easy to get to



MORE INFO:

<http://www.dmraa.com/hamfest>
<http://www.lowastatefair.com/gettinghere.php>



DOOR PRIZES

Yaesu FTM-350R Advanced Mobile Radio
144/220/430 MHz 50W FM Dual Band Transceiver
GPS/APRS/Bluetooth / Band Scope
Huge Memory/More!

Wouxun Dual-band HT

ARRL gift certificates

1st ticket is included with paid admission \$6.00 each additional

CONTACT US:

DMRAA
P.O. Box 88 • Des Moines, IA 50301
E-mail: info@dmraa.com
Web: <http://www.dmraa.com>



Des Moines Radio Amateurs Assn.
P.O. Box 88
Des Moines, IA 50301
DMRAA.org or DMRAA.com

E-mail: info@dmraa.com

Can you hear me now?

The Static sheet is bi-monthly (six per year) publication of the Des Moines Radio Amateurs Association. It is provided via email to the membership of the DMRAA. Please feel free to forward to prospective club members and interested Amateur Radio Operators.

The DMRAA is affiliated with the ARRL, The national association for Amateur Radio.



DMRAA Membership Application

Des Moines Radio Amateurs Association

Name: _____

Address: _____

City: _____, State: _____ Zip: _____

Phone Number: (____) _____ Email: _____

Call Sign: _____ Class: (E) (A) (G) (T)

ARRL Member: ? Y / N

What are your primary interests in amateur radio? _____

What are you interested in learning about? _____

How would you like to volunteer with the club? _____

Dues \$20 Single
\$60 3 Years

Mail Application and payment to
DMRAA
P.O. Box 88
Des Moines, IA 50301

