

# STATIC SHEET

## OFFICERS

- Scott Kirstein NØOD  
President
- Tom Weaver NØTLW  
Vice-President
- Patrick McIntyre KD9BBA  
Secretary
- Bill Claypool NUØQ  
Treasurer

## BOARD

- Rick Allen, NØCFL
- Dennis O'Brien KAØDOS
- Ray Harden WØRAY
- Bob Johnson, WØSMS
- Mike Waldron AEØMW
- Vacant

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OCTOBER 2019

## DMRAA ChiliFeed / Auction, Fast approaching!

The 2019 edition of our annual ChiliFeed / Auction is a little more than a month away. November 26th, 2019 to be exact. Have you scoured the shack to find those great little treasures that are not being used like they once were? Have you put them in the box? Is the box full yet? If so your ready to rumble.. Did we mention the all you care to eat chili? Chili Feed starts at 6:00 PM, Auction at 7:00 PM Cost is \$7.00 for the event. 10% commission to the club for the auctioneer. **New this year, a door prize.**  
A Diamond SX-40 Meter.



**Membership  
has its  
Privileges'**

### S DMRAA Christmas Party to see Changes

Request from members have encouraged the Board of the Des Moines Radio Amateurs Association to consider changes to the annual Christmas gathering. Ideas being weighed are a fully catered meal or modified versions. These would require a charge for the dinner but would allow the spouses to enjoy the evening without the drudgery of preparing meals and desserts. Details will be announced closer to the date.





**Come enjoy the fellowship**

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



# Upcoming Meetings

## October 22nd, 2019 DMRAA Meeting



3-D printing Demo and discussion  
By Richard Wagner NØPBO

7:00PM  
Waveland Room, 2nd floor  
Plymouth Congregational Church  
42nd & Ingersoll Des Moines, IA

November 26th, 2019  
6:00PM ChiliFeed 7:00PM Auction



DMRAA Annual ChiliFeed / Auction

St. Paul Presbyterian Church  
6426 Merle Hay Road, Johnston, IA

The DMRAA meetings provide an excellent opportunity to meet new friends and enjoy fellow hams. Please feel free to invite newly licensed amateurs or friends to attend.

## Future Meetings

We're looking for meeting ideas and presenters. Please feel free to make suggestions and offer to help with a presentation.

Contact  
Tom Weaver NØTLW  
at [info@dmraa.com](mailto:info@dmraa.com)



## 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.

# Recent Meetings

## August Meeting Let's build an antenna

A large enthusiastic group enjoyed building a simple ground plane antenna. The August meeting was a lot of fun and learning. As members were completing their antennas, others were eager to test them. No surprise, they worked great with low SWR. The meeting was planned and presented by Rick, NØCFL and Bob, WØSMS. With so many positive comments, We suspect there will be more of these project oriented meetings.



# 2018 DMRAA Calendar



## Calendar 2019

**General Meetings and Events**  
22 October, 2019

**26 November, 2019 ChiliFeed**  
**10 December, 2019 DMRAA Christmas Party**

28 January, 2020  
25 February, 2020

24 March, 2020

28 April, 2020

26 May, 2020

June 23rd, 2020

**June 26—27 ARRL Field Day**

July 28, 2020

August 25, 2020

September 22, 2020

October 27, 2020

### Board Meeting Dates

5 November, 2019

7 January, 2020

4 February, 2020

3 March, 2020

7 April, 2020

5 May, 2020

2 June, 2020

7 July, 2020

4 August, 2020

1 September, 2020

6 October, 2020

3 November, 2020

1 December, 2020



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 NUØQ for details.

Dues are calendar year

## President's Soapbox

After a robust conversation, your board of directors has decided to give our annual Christmas Party a “refresh”!

This year's party will be on December 10<sup>th</sup> at the usual place and time – BUT this year we will have a catered meal!

There is a \$15.00 per person cost for this year's party, and we will need to provide an idea of attendance to give the caterer prior to that. To help that process, we will be selling “tickets” for the party beginning at the Chili Feed and Auction.

We will also be able to take payment for the auction, membership renewals, and reservations for the Christmas Party via PayPal the night of the

auction.

Some of you may be more inclined to keep your auction purchases “off the books,” have no fear, we will still take cash and checks for the above purchases as well ☺.

The move to PayPal has been something we have been working on (and a lot of you have been asking for), and we are finally able to implement the change.

One final note about these two upcoming events: At the Christmas Party we often times recognize an individual to receive the “Winthrop Major Award.” This award is to recognize an individual club member who has made a significant contribution to the hobby, and the nominations come from you.

In previous years we have few – if any – nominations, and (in my opinion) that is sad. Surely there is someone each of you has felt worthy of this recognition, but very few people actually take the time to write a nomination. PLEASE DO!

You can give it (in a sealed envelope) to any board member, and a committee of past recipients will make the final determination.

Scott, NØOD

Editor's note: A Winthrop Mager nomination form can be found on page 15



**If  
passion  
drives  
you, let  
reason  
hold the  
reins.**

Benjamin Franklin



**Time to think  
about your  
2020  
DMRAA  
Dues**





**Giving back through  
community service**

Scott Kirstein  
NØOOD  
Polk County ARES EC  
515 490-7414 (cell)  
[n0ood@arri.net](mailto:n0ood@arri.net)



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



# Polk County ARES



I'd feel like I may have "overshared" elsewhere in the edition of "The Static Sheet" so I'll keep this one shorter :)

We have just two events left for 2019. They are both pretty labor intensive and we can still use help for them.

The IMT Des Moines Marathon is Sunday, October 20th and runs until about 3pm. Some positions will be "cleared" earlier.

This Year's Living History Farms Cross Country Race is on November 23rd and is usually over by 2pm (depending on "the Frogs" - For those who don't know, ask me at the Chili Feed :))

If you haven't volunteered for an ARES event before, we can put you with someone who has, and if you have helped out before and would like to again, please click go to <http://dmraa.com/ares>

Scott, NØOOD



## ARES Membership Requirements

Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in ARES. Training may be required or desired to participate fully in ARES. Please inquire at the local level for specific information. Because ARES is an Amateur Radio program, only licensed radio amateurs are eligible for membership. The possession of emergency-powered equipment is desirable, but is not a requirement for membership.

## ARES MEETINGS DATES 2020

(Tentative)

Monday, January 6  
Monday, April 6  
Monday, July 6  
Monday, October 5

7:00 PM

**Polk County Emergency  
Operations Center  
1907 Carpenter  
Des Moines, IA**

## 2019 ARES Events

IMT Des Moines Marathon  
October 20th, 2019  
Living History Farms Fun Race  
November 23th, 2019

Sign-up online at [DMRAA.com/ARES](http://DMRAA.com/ARES)



Have you  
checked into a  
net lately? →

**ARES Nets serve  
several purposes**

- **Operator training**
- **Training of Net  
control operators**

**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-	8:00pm	Boone County ARES Net
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### CRESTON

Sunday	443.400+ t 151.4	8:30pm	SW Iowa Amateur Radio Assn.
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### DES MOINES

Sunday	145.310- t 114.8	6:00 pm	WIRES-X Net
Sunday	145.390- t 114.8	7:00 pm	Saylorville Fellowship Net
Sunday	29.670- t 103.5	7:30 pm	Iowa Ten Meter Net
Sunday	146.610- t 114.8	8:00 pm	Central Iowa ARES Net
Sunday	146.940- t 114.8	follows ARES net	Central Iowa Technical Net
Sunday	443.400 t 151.4	8:30 pm	SW Iowa Amateur Radio Assn Net
Monday	146.940- t 114.8	7:00 pm	DMRAA information Net
Wednesday	53.250-	8:30 pm	Iowa 6 Meter Net 1.7mhz-
Thursday	146.940- t 114.8	7:00 pm	Polk County ARES Net

### INDIANOLA

Saturday	146.60- t 114.8	7:30am	Warren County ARES Net
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### PERRY

Monday	145.190- t 114.8	8:00pm	Dallas County ARES Net
Monday	145.190- t 114.8	follows ARES net	HARC Net

### STATEWIDE NETS

Sunday	444.725+	7:30 pm	Iowa DMR User Group Net
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



## Amateur Radio Testing Sessions



### Des Moines 1:00pm

November 17 2019

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 N0CFL  
(515) 795-2162  
n0cfl@arrl.net

### Ames

Oct 26, 2019

Dec 7, 2019

(Saturday) @ 10:00 a.m.  
Location: Room 1226 Howe Hall, Iowa State University

Location: Iowa State University campus, as noted above  
Contact: Matthew Nelson, KB0MGQ, 515-984-0010, or email at kb0mgq@gmail.com

### Boone 9:00am

October 12, 2019  
December 14, 2019

Time: 9:00 AM  
Location: Conference room behind the cafeteria at the Boone County Hospital, 1015 Union St, Boone, Iowa

Contact: Steve N0NEU  
(515) 432-4006

### Marshalltown 9:00am

December 7, 2019

Check-In: 9:30 AM  
Exam Starts: 10:00AM  
Location: RACOM Corporation 201 West State Street Marshalltown, IA

Contact:  
Brian Krumm, N0MXX  
n0mxk@arrl.net  
641-752-9658

Time to find a new home for your extra gear?

This Buy, Sell & Trade page may be your answer. This service is offered to DMRAA members.

Contact  
[info@DMRAA.com](mailto:info@DMRAA.com)

Looking for something?  
We'd be happy to help you by listing your want items here



## Buy / Sell

Many Electronic Parts for Sale.  
Many 74### series IC's for sale.  
Many 40## series IC's for sale.  
Many Transistors for sale.  
Many Diodes for sale example 1N4004 1A/400V 5=\$1.00. Also 1N34 equivalent 10=\$1.00.  
Many Generic PNP & NPN for sale.  
Small signal are 10=\$1.00.  
Many capacitors for sale.  
Seven segment LED's for sale.  
Many small power 1200:8 ohm transformers.  
(This was for SSTV/PSK-31 interface and amplifiers)  
Email me for your needs and I will let you know the availability and price.

Please no single piece orders. Electronics Nerd needing to share treasures.  
Larry KAØFTO  
[kzlzimmer@mchsi.com](mailto:kzlzimmer@mchsi.com)



Looking to add the slash zero Ø to your correspondence?

On your desktop computer using the numeric key pad hold the alt key while typing 0216. On a computer with no side key pad go to insert symbol and find the Ø in the list.

## Are you checking the website?

Timely news and notices are posted on the DMRAA website.

[dmraa.com](http://dmraa.com)



Hungry and looking to meet local hams? On Fridays at the Bonanza Steakhouse 5029 NE 14th St, Des Moines, a group of hams meet for lunch. This is an informal meeting and provides an ex-

cellent opportunity to pass information while enjoying a nice selection from the salad bar or menu. The group (around 15) usually arrives around



11:30 and breaks up at about 1:00. All are welcome, including family members.

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



### DMRAA to Host Jamboree on the Air

The DMRAA will host this years JOTA event at the Fort Des Moines Museum, Army Post Road and Chaffee Road. Saturday October 19th. The station will be active from 9Am to 2PM. Please invite any Scouts that you know (Boy or Girl) to visit. They will be talking to other Scouts many miles away. By the way, this is the largest Scouting event in the world For more information visit this website <https://www.scouting.org/jota/>

### General Study Class Starts October 17th

The General class is Thursday October 17 2019, 7:00 to 9:00 pm, through December 12th ,2019. Testing will be on December 12th. (No Class on Thanksgiving)  
The class will be held at the Edge-water retirement community. 9225 Cascade Ave, West Des Moines,

Contact Bob Johnson WØSMS at [rji104@q.com](mailto:rji104@q.com) for more details.

## AMATEUR RADIO

### ARES Reflective Vests

Polk County ARES now has several Class 3 Level 2 Safety Vests available for purchase. These are better quality surveyor type vests with sleeves and several pockets in sizes m thru 3XL. They have the words "RADIO COMMUNICATIONS" on the back.

Cost is \$20.

Contact Tom, NØVPR  
[n0vpr@arrl.net](mailto:n0vpr@arrl.net)



Note: You need not be a Polk County ARES or DMRAA member to purchase a vest.



### Static Sheet Deadlines

Item submission deadline	Publish Date (Email sent)	Web edition posted
February 1 <sup>st</sup>	February 15 <sup>th</sup>	February 20 <sup>th</sup>
April 1 <sup>st</sup>	April 15 <sup>th</sup>	April 20 <sup>th</sup>
June 1 <sup>st</sup>	June 15 <sup>th</sup>	June 20 <sup>th</sup>
August 1 <sup>st</sup>	August 15 <sup>th</sup>	August 20 <sup>th</sup>
October 1 <sup>st</sup>	October 15 <sup>th</sup>	October 20 <sup>th</sup>
December 1 <sup>st</sup>	December 15 <sup>th</sup>	December 20 <sup>th</sup>



# WØAK Board Minutes DMRAA

## DMRAA Board Meeting Minutes

Tuesday, August 13, 2019

The meeting was called to order at 7:06PM

### In Attendance:

- Scott Kirstein N0OOD (President)
- Tom Weaver N0TLW (Vice President)
- Bill Claypool NU0Q (Treasurer)
- Dennis O'Brien KA0DOS (Board)
- Ray Harden W0RAY (Board)
- Bob Johnson W0SMS (Board)

1. **Review of July 9 minutes:** Bob W0SMS moved to approve as printed, Tom N0TLW seconded, motion carried

2. **Treasurer's Report:** \$23,871.86

- (a) The post office box has been renewed

3. **Polk County ARES update:**

- (a) Head of the Des Moines Rowing Regatta September 28th; requires ~18 operator volunteers  
(b) Next ARES quarterly meeting: Monday October 7th, 2019

4. **Unfinished business:**

- (a) Need to test PayPal pmt code/buttons: Bill Claypool NU0Q has created three code sets for three separate buttons to be added (after testing) to the DMRAA website. The buttons will cover dues, a donation and the \$100 Technician class fee. Tom Weaver N0TLW will get together with Tom Reis N0VPR to work on testing Bill's PayPal payment button implementation.  
(b) Two VHF/UHF antennas purchased by Tom Reis - was this question resolved?

4. **Subcommittee reports:**

**Repeaters & Packet:** -no report-

**Education:**

- (a) Technician class scheduled for Saturday, October 12th at the Fort DSM Museum  
(b) General class meets at Edgewater for 8 weeks beginning on Thursday, Oct 17th, 7-9PM; no class during Thanksgiving week

**Programming:**

- (a) August Mtg: Antenna Build by Rick N0CFL, Bob W0SMS - Big success, well attended, all antenna kits sold out  
(b) September Mtg: Tom N0TLW presentation on learning CW through the CW Academy classes offered by [CWOps.org](http://CWOps.org)  
(c) October Mtg: Richard Wagner N0PBO has offered to do a 3D Printer demo; he is an electronics instructor at DMACC  
(d) November 26th: Chili Feed, Space reserved? Chili cooks/contributors are: Tom N0TLW, Scott N0OOD, Pat KD9BBA, Bob W0SMS, Ron KD0TTO, Carlos (SW chili). Ray W0RAY is to check with Larry regarding an auctioneer.  
(e) Christmas Party Dec 10; Funding authorization decision needed during Sept board mtg; now necessary via email. December 10th is a popular Christmas party date, and caterers are rapidly filling their calendars. Ray W0RAY and Dennis KA0DOS are chairing the party and have researched two catering options (DMRAA Members to pay \$15/person, club covers the remainder):

**Option #1:** First-class Christmas dinner by **Christiani's VIP Catering & Events:**

The Des  
Moines Radio  
Amateurs  
Association  
board meets  
monthly in the  
upstairs  
conference  
room at the  
East Euclid  
Hy-Vee  
2540 E Euclid  
Ave  
Des Moines



(\$1,000 non-refundable deposit due with Reservation Request Form)

Option #1 eliminates the work (prep, setup, cleanup, etc) by DMRAA members & spouses; a very nice Christmas party that will be a must-attend for members, potential members, newly licensed Hams, etc.

See details at [https://docs.wixstatic.com/ugd/0469b2\\_fc597a3bd1924c349a94054f12c334cc.pdf](https://docs.wixstatic.com/ugd/0469b2_fc597a3bd1924c349a94054f12c334cc.pdf)

(This is a wedding service description but many of the details apply for our party)

Buffet special (per person) \$18.95

Up-charge (based on 50) \$ 8.25 (over 50 up-charge drops to \$5.50/person)

Service Charge (20%) \$ 5.44

Sales Tax @ 7% \$ 1.90

\$34.54/person

Minimum 50 party-goers @\$35.00 = \$1,750.00

50 attendees pay \$15 each: - \$750.00

Bottom Line - Club pays: \$1,000.00

Buffet Special details: Sliced USDA Choice Roast Beef with Horseradish cream sauce, Roast Chicken simmered in wine, Tortellini with Creamy Tomato Basil Pesto, Italian Roast Potatoes, Fresh Garden Salad, Rolls & Butter, Coffee, Ice water. A wide variety of other dinner menus are available; this one is their most popular choice.

**Option #2:** Palmers Deli, \$100 deposit with Reservation, cancellation no later than noon on the day before delivery of the food. Must give at least 24 hour notice when placing food order. Food delivered to the church; members & spouses will need to perform all setup/clean-up work.

Entree (50 attendees) \$305.00 (Beef Stroganoff)

Two Sides (choose) \$374.00

Salad (choose) \$187.00

Desert Italian cream cake \$104.00

\$970.00 (approximate; price can vary based upon choices)

50 attendees pay \$15/ea. - \$750.00

Bottom Line - Club pays: ~\$250.00

Difference between Option #1 and Option #2: **\$750.00** for the club, assuming 50 attendees

**Board Members:** First visit the link shown above to Christiani's for details on their catering service, then decide which option to fund by Friday, September 13th so we can be assured of a catering reservation on December 10th.

#### **Communications & Public Relations:**

(a) Payment made to Tom Reis for DMRAA.org & .com domain name renewal purchase (5 years)

(b) Tom NOTLW planning:

i. State Fair booth

ii. Written invitation letters to be sent out by October:

1. Girl Scouts & Boy Scouts

3. FFA & 4H

5. Central Campus

6. STEM; APEX - Waukee

**Membership:** -no report-

**Awards:** -no report-

#### **5. New Business:**

(a) Club station at The Fort Des Moines Museum & Education Center discussed

(b) Review and clean-up of the DMRAA membership list by Dennis KA0DOS and Bill NU0Q

Motion to adjourn by Bob W0SMS, seconded by Ray W0RAY, motion carried at 8:58PM

# WØAK Board Minutes DMRAA

## September 2nd, 2019 Board Meeting Minutes

No meeting as there was not a quorum

*The Des Moines  
Radio Amateurs  
Association  
board meets  
monthly in the  
upstairs  
conference  
room at the  
East Euclid  
Hy-Vee  
2540 E Euclid  
Ave  
Des Moines*



### Static Sheet Deadlines

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December 1 <sup>st</sup>	December 15 <sup>th</sup>	December 20 <sup>th</sup>

## So, What will \$100 Buy in a Generator?

### By Tom NØVPR

Short answer, a 800 watts 2-cycle 120 volt power source. Longer answer, not a lot. First let me state that I own a 6,000 watt generator with a 5-gallon tank and a very dependable Briggs and Stratton 4-cycle engine. Also own a 2,500 watt with a Briggs and Stratton engine. I will base some of my findings on experience with these two gensets.

I had seen these little 2-stroke generators advertised at Harbor Freight Sale for years at about \$100. As luck would have it, one was given to me. Brand new in the box. It was about 5 years old, but the box was still sealed. Game on! A few days later I opened the box, added the properly mixed (50-1) fuel and tried to start it. No luck, I could make it run with starting fluid, but not on its own. Well before I tore into it, I thought I should see a parts breakdown.

I stopped into Harbor Freight a few days later to inquire about a parts breakdown. I spoke to the manager who shared that no parts list existed as they don't sell replacement parts. Really? That would make this thing truly disposable. By the way, it is the same for any generator or engine they sell. The manager agreed with my disappointment and said that individual store managers have been asking the company to offer repair parts.

Now I was on my own. I decided to tear down the carburetor. I found the issue, a stuck fuel float. Not a big deal. After that we were in business. I was then able to test this thing.

Rated at 800 watts continuous and 900 watts surge I was able to test these parameters. I used a 750-watt heater for the load. It ran the heater fine. I then started adding load with incandescent lights. I had no trouble with one 40-watt bulb. When I added the second bulb, I noticed that the voltage which had held at 118.6 volts started dropping. Now at 106 volts the motor showed little sign of the overload. I stopped there as I didn't wish to damage the unit. There is an overload breaker, but you never know. So, what will this little guy be good for? For starters it will power my Milwaukee D-handle ½" drill no worries. I also tried a Samlex 23 amp switching power supply and My Icom IC-2820 on high power. Again, no worries. I'm not sure I would trust some of my higher end electronics on it, but I'm sure it would work for most light duty Field Day activities. By the way, it is fairly quiet. OK, not as good as the inverter generators but still not deafening. My Briggs and Stratton gensets are loud! I manage that with a long extension cord.

Now the big question, would I buy one? I generally buy tools for the long haul. I have wrenches and ratchets I bought as a teenager. My other generators are over 20 years old. When needed I have been able to procure parts for them. The fact that at present, no replacement parts exist for the generator is reason enough for me, not to buy one. While \$100 isn't going to break me. I'd be annoyed if after a year (end of warranty) I had to throw it away. That said, my intention is to bring it to the next Field Day and use it for my drill to raise and lower the 40-foot tower. See you there.

Note: Photo to the right is of the current model. List price is \$124.99. They are often on sale for \$104.



— (G) —  
generátor



## WHATISIT #6!

### By Larry KAØFTO

I ran across a very interesting circuit that seemed simple enough. Now what? What can I use it for? Ok I will call it an AC sniffer. It will show 60HZ, 2 Meters, a Digital display in a clock, and a Digital display on a Microwave! How does it show? There is a yellow LED, because that is the first color that I found. I actually made a few changes in the circuit. The original circuit had BC547 NPN transistors

I used PNP transistors in place of NPN because I have many of those.

I added a glass Germanium diode across the first transistor base to emitter.

This seemed to make it more sensitive.

So what are the parts?

3 each 2N2907A PNP transistors (I have many).

1 each led.

1 each 2 cell Double A battery holder.

2 each Double A alkaline batteries (I have many).

1 each glass germanium diode similar to a 1N34 (I have many).

1 length 15 gauge solid bare wire or larger approximately

18" in length for the pickup coil. Strip the insulation from 14 gauge house wiring solid wire and that should work also

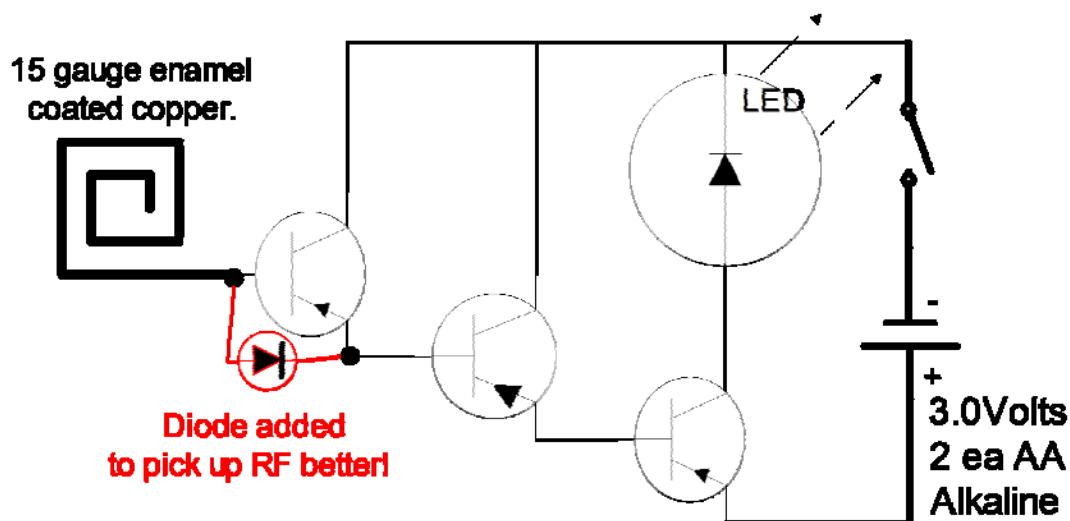
1 each chunk of Formica approximately 2"X10" used for circuit board.

1 each switch for power.

This is a very strange circuit as it almost looks like a Darlington type circuit, that gives a very high gain, but no bias or load resistors except for the transistor close to the battery and the load is the led. A Darlington has only 2 Transistors!

Pay close attention to the polarity of the battery, added Diode and the Led.

If you do a search on the Internet under MEXTRAF you will find the original circuit and some other interesting ones as well.



## WHATISIT #6! (cont)

**FIG4 Board from the top side with the coil to the left.** Note the figure is actually how I shaped the pickup on mine but I had more wire.

I first added the Glass Germanium Diode and it allowed the LED to light up when close to a 2 meter HT antenna. It seemed if I brought the 15 gauge coil close to an AC wall receptacle and also light switches the LED would light up. Something seemed strange so I taped the unit on the end of a wooden yardstick and sure enough it was less sensitive. As I expected my hand holding the end of the circuit board at the battery holder was increasing the sensitivity to normal AC dramatically? I guess I was acting as part of the pickup or antenna as I will call it.

So why build this? So why not and then go around your house finding where all of the leakage from 60HZ is. I am still puzzled as to the many places that the LED will light up. I have a cheap oil painting that the LED lights up all over? It is just above some light switches. I first thought I could trace the ac wiring in my house but of course without current flowing through the wires there will be no magnetic field? Power cubes or Wall warts really make the LED light up.

**SO WHAT DO YOU DO IF YOU FIND 60 HZ LEAKAGES ALL OVER YOUR HOUSE?**

I do not know but wasn't it fun building and using this circuit. Try taking this circuit to your neighbors or favorite uncle and as the LED lights up say HUMMM.

And then leave without saying anything. You may not be invited back.

**Of course I will include some photos of my steps in building this Whatisit6. See Page 13**

**FIG1** Getting the parts together. 2 switches but use just 1.

**FIG2** The 2 cell battery holder is the most difficult to find. Also you can see the size of the 3 Transistors.

**FIG3** Most of the wiring on the underside of the Formica board.

**FIG5** Closer view of the coil/probe with tape to hold it in place.

**FIG6** The Diode is just visible across the Base to Emitter of the first Transistor.

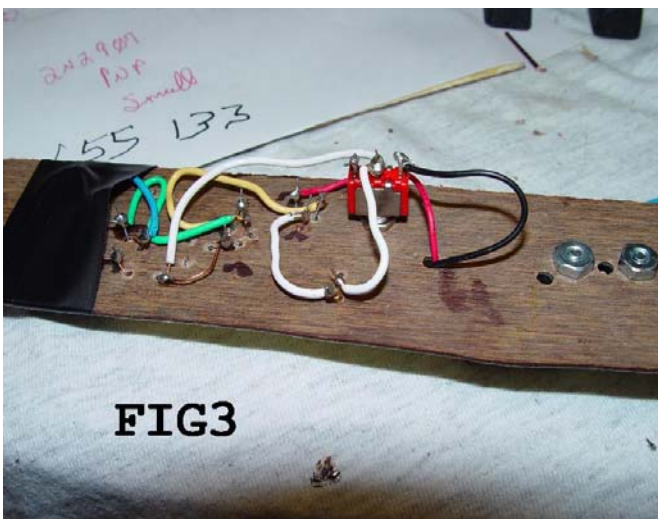
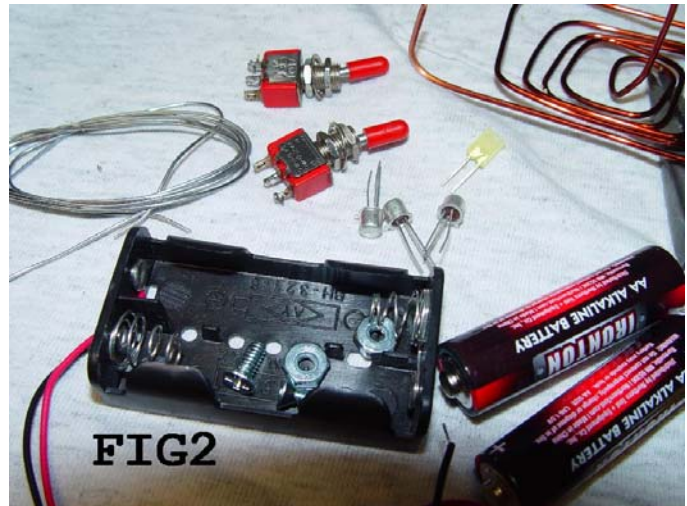
*the virtual*

*Static Sheet*

of the Des Moines Radio Amateurs' Association



## WHATISIT #6! (cont)





# Winthrop Mager Award

The purpose of the Winthrop Mager Award is to perpetuate the memory of the Reverend Winthrop M. Mager WØMJH, and to stimulate the activity in all fields of Amateur Radio in the Central Iowa Area. It is awarded by the Des Moines Radio Amateur Association, Des Moines, Iowa. Any radio operator with any class license who is a member of the Des Moines Radio Amateur Association is eligible. Nominations will be submitted to the committee in writing no later than the regular November meeting.

Nominations for the Annual Winthrop Major Award need to be sent to the DMRAA President no later than the November 26th meeting. They must be in writing. The President will give the nominations to the Committee for processing at that time. Nominees are those DMRAA members that have shown outstanding support for Amateur Radio, promotion of the Amateur Radio Service and have done so with the utmost respect for the community and fellow operators.

## Nomination

I would like to nominate:

NAME: \_\_\_\_\_ CALL: \_\_\_\_\_

Please tell us why this person would be a good choice for the Winthrop Mager award:

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Submitted by: \_\_\_\_\_ Call: \_\_\_\_\_ Date: \_\_\_\_\_



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

E-mail: [info@dmraa.com](mailto: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

NOTE: Dues are for calendar year.

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

