

# STATIC SHEET

## OFFICERS

- Scott Kirstein NØOOD  
President
- Tom Weaver WØFN  
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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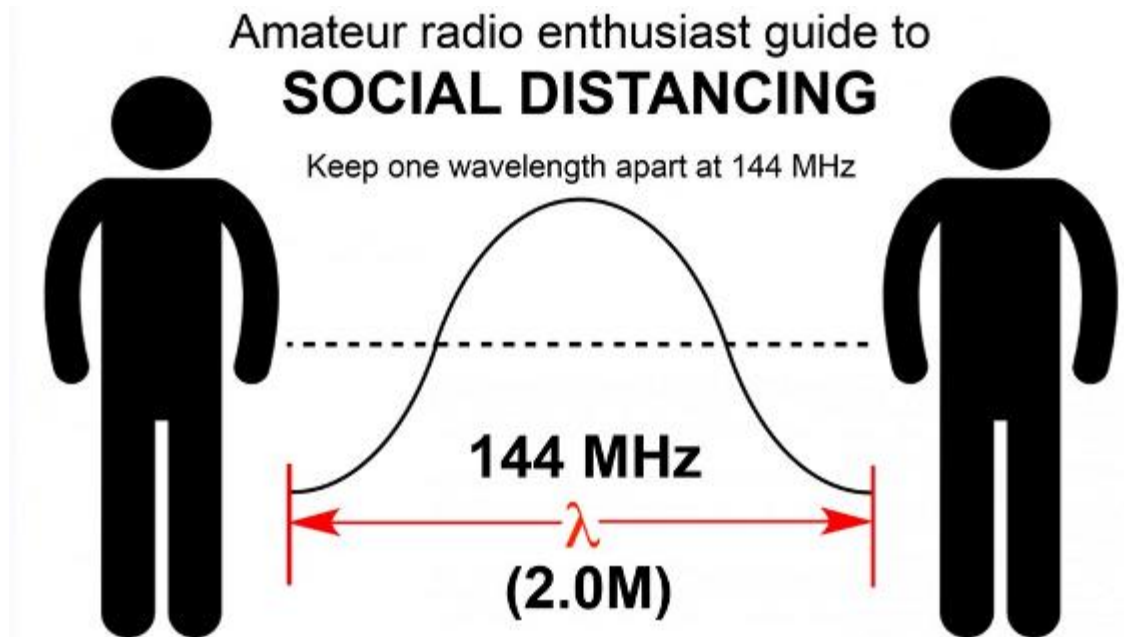
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APRIL 2020

## Coronavirus, Affects Us All



Of course we are all experiencing the effect of this pandemic. For some it is a huge impact, first with those who have become infected and all those whose circumstances have changed. The dilemma of being in good health and yet unable to work due to a variety of reason. We encourage all Hams to keep a positive attitude even when it looks bleak. Call up a friend, get out and do some yard work offer to get items for an elderly neighbor. The amateur Radio community stepped up in 1948 coming to help with the polio outbreak:

## The Founding of Operation Santa Claus

In July of 1948, Des Moines was besieged by an epidemic of polio, which filled all the hospitals, primarily with children. The Sister Kenny treatment was used involving hot water and wool blanket. The demand for blankets was so great it put them in short order. An appeal was made for donations of wool blankets of all kinds for hospital use. This is when the members of DMRAA under the leadership of the late Bob Evans, W0AUL, set out to make pickups from home contributions with their mobile units until these blankets were all taken to the hospitals in Des Moines and the shortage was taken care of.

At this particular time, amateur radio was in its infancy in mobile operation. Almost all mobile communications were commercial conducted by the police, fire, and taxi cabs. The amateurs did have rebuilt commercial units along with home built gear built by themselves so the opportunity to be of service was very clear, and with the eager cooper-

Continued on page 2

## The Founding of Operation Santa Claus Continued

ation of our members it was obvious that we could be of help with our mobile communications in the city.

During November of 1948 as Bob Evans and myself were trying to think of some activities to keep the interest of mobile communications the idea came up, how about a Christmas pickup and delivery of food and toys by our people for several unfortunate families.

Plans were made and donations were collected the Sunday before Christmas that year. These were taken to a point where late in the afternoon of December 24th, Earl Reynolds, WØBEE, and myself, with a large truck delivered the donations to three families, name given to us by Polk County Welfare. The first stop was an elderly couple much in need, the second was a family of four in the same condition. The last was a large family of a couple with twelve small children. Although Earl and myself were late getting home to our own families about nine o'clock that Christmas Eve night, it gave me a spirit of Christmas that I have never forgotten. The thought of those small children unloading the toys and food from that truck still remains on my mind.

Operation Santa Claus was born that night.

In 1949, we expanded our operation and put out a greater call for donations and took care of more people, picking up and delivering all we received ourselves.

The next year, all of the donations we received went to Polk County Welfare as we again were unable to do both services. We knew that it would take care of many families who would not be able to have a good Christmas, but we missed the actual seeing of the people receiving the benefits of our work.

The next year, we lined up with the Bidwell community which was located on the southeast side to handle our distribution. But again we had grown so much they were unable to take care of all of it.

We then solicited the help of the Volunteers of America, a relief organization and for the next few years until they ceased their operations operation in Des Moines, we concentrated on picking up all the donations and they took over distribution to the needy. They really had all the facilities to get this done and even our antennas, equipment and dispatching was handled from their warehouse and they did a fine job.

After Volunteers of America left Des Moines, we contacted several radio stations in the city, finally tying up with KRNT Radio. This continued for many years and we received and enjoyed great cooperation from KRNT and their people. In those days, we would start Operation Santa Claus at 9 in the morning and continuing on until 11 that night. Our mobiles being in the greater Des Moines area from 15 to 17 hours as the station continued to call us for donations all that time. We again attempted the redistribution by ourselves but were convinced that we could not do both so we asked St. Vincent de Paul to take over the distribution of the food, toys, clothing, and money which they did, and we were very grateful to them.

Little by little KRNT brought in the service of KRNT-TV, which gave us added publicity before and during our operation.

Finally, with the sale of KRNT Radio, we stayed with their TV facilities. Their call letters were changed to KCCI-TV and they gave us more on the air time the day of our operation, which continued to make us grow. We have also been joined by other fine companies and they along with the Iowa National Guard have assisted greatly.

It has been my good fortune to be with Operation Santa Claus these 38 years since its start, and I served as general chairman for 26 years before present Chairman Carmi Smith, WØJOC, took over. It has been a personal satisfaction for myself and Bob Evans if he was still here to have established this operation and We are extremely grateful to all the radio amateurs who have kept it going.

So on behalf of Bob Evans and myself we say: YOU PEOPLE ARE THE GREATEST!

— John Moffet, WØSVD, July 28, 1986





**Come enjoy the fellowship**

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



## Upcoming Meetings

The normally scheduled DRMAA club meeting of April 28 is cancelled due to limiting gatherings of more than 10 people. Since this is normally the meeting that nominations are accepted for the following month elections, the board wishes to conduct the nominations via the static sheet.

There is currently one member of the club that wishes to be considered for the outstanding Board position. This person is Dean Madsen, NØXR. If there is an objection to him being "nominated", please let Scott Kirstein-NØOOD or Tom Weaver-WØFN know via email. Likewise if there are any other nominations, please let Scott and Tom know.

Scott's email address  
is [n0ood@thekirsteins.org](mailto:n0ood@thekirsteins.org)  
Tom's email address is [tom@networken.com](mailto:tom@networken.com)

Future club meetings are cancelled until further notice.

**CANCELLED**

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

February was our last regular meeting. It was our annual Skyward Spotter Training. We were indeed fortunate as all Spotter Training classes have been cancelled. That said we had over 55 folks in attendance. Most were Hams but we saw a few XYLs and some just taking the class. It is heartening to see fellow hams understand the need to take this refresher regularly.



# 2018 DMRAA Calendar



## Calendar 2020

### General Meetings and Events

25 February, 2020 - NWS  
 24 March, 2020 - canceled  
 28 April, 2020 - canceled  
 26 May 2020  
 23 June 2020  
**27-28 June - ARRL Field Day**  
 28 July, 2020  
 25 August, 2020  
 22 September, 2020  
 27 October, 2020  
**24 Nov - Chili Feed / Auction**  
**08 Dec - Christmas Party**

### Board Meeting Dates

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  
 5 January, 2021  
 2 February, 2021  
 2 March, 2021  
 6 April, 2021



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.  
 Pay online at DMRAA.com

## President's Soapbox

Greetings, I hope this finds you all well and healthy!

As many of you have likely heard by now, after much debate, the Board of Directors has decided to cancel this year's Hamfest.

Given the timing of the COVID-19 Pandemic and its impacts on both individuals as well as gatherings of people, we felt that the prudent course of action at this time.

To date we have also cancelled the March monthly meeting, and will unfortunately likely cancel more before we come through this current crisis. Please keep checking the dmraa.com website for the most up to date information about our events.

I have seen a meme on

facebook indicating that hams actually invented "social distancing," and while that brings a chuckle – it also points out another opportunity we have to stay in touch with each other. Get on a Net, schedule a QSO with a buddy (near and far), keep tabs on your "peeps" and see how you might be able to help them – even saying "hi" can provide some "therapy" as we are weathering this storm together separately.

Stay Well and Healthy

Scott, NØOOD



Healthy citizens are the greatest asset any country can have."

Winston S. Churchill



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



The COVID-19 pandemic has caused the cancellations of all Polk County ARES events till June. The next scheduled event will be the Iowa State Fair Parade. This should not mean that we may sit idle. Apart from the normal shack projects I would like you to consider taking some online FEMA Independent Study classes. IS-100 & IS-700 come to mind. These 2 to 3 hours, classes are easy and simple. There are over 150 different online classes available, surely one will pique your interest.

73,  
Tom, NØVPR  
State of Iowa RACES Officer

January 30, the Iowa House of Representatives' Transportation Committee approved the bill that allows amateur radio operators to have blackout plates. That means the bill will now go to the House Floor for consideration. **Now is a good time for those who would like to have a ham radio blackout plate to contact their representatives in the Iowa legislature.**

January 15th, Representatives Olson, Jones, and Mitchell introduced HF2020 which is a bill to allow amateur radio operators to have Blackout plates. They are proposing to make the change to the Code section that is specific to radio operator plates, so that is a good, direct way to make the change. I am hopeful it will eventually be passed, and encourage Iowa amateurs to

contact their legislators.

Here is a link to the bill that was introduced. <https://www.legis.iowa.gov/legislation/BillBook?ga=88&ba=HF2020>

Have you seen all the **BLACK** Iowa license plates lately? Many of us have and maybe a few thought their callsign would look good on a black background. So did Keith, AKØQ. If you'd like to help, please contact Keith. His note is below.

If you tried to get a ham radio plate with the popular Blackout design, you likely found that the Iowa DOT will not issue that design to an amateur radio operator. I found that interesting because the very popular Blackout design is available for numbered plates and personalized vanity plates, but not for amateur radio operators.



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



### ARES MEETINGS DATES 2020

Monday, April 13 Cancelled  
Monday, July 13  
Monday, October 12

7:00 PM  
Polk County Emergency  
Operations Center  
1907 Carpenter  
Des Moines, IA

### 2020 ARES Events

ARRL Field Day June 25th & 26th, 2020  
Iowa State Fair Parade August 12th, 2020  
Head of the Des Moines Rowing Regatta  
September 26th, 2020  
IMT Des Moines Marathon  
October 18th, 2020  
Living History Farms Fun Race  
November 21st, 2020

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

May 17th, 2020  
July 19th, 2020  
September 20th, 2020  
November 15th, 2020  
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 NØCFL  
(515) 795-2162  
n0cfl@arrl.net

### Ames 10:00am

(  
Carver Hall, Room 0232  
(second floor), 411 Morrill Rd., Ames, IA 50011

Contact: Matthew Nelson,  
KBØMGQ, 515-984-0010, or  
email at kb0mgq@gmail.com

### Boone 9:00am

June 13, 2020  
August 8, 2020  
October 10, 2020  
December 12, 2020

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

Contact: Steve NØNEU  
(515) 432-4006

### Marshalltown 9:00am

May 2, 2020  
August 1, 2020  
December 5, 2020

Check-In: 9:30 AM  
Exam Starts: 10:00AM  
Location: Marshalltown Public Library  
105 W Boone Street  
Marshalltown, IA

Contact:  
Brian Krumm, NØMXK  
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.



## New Option for Paying Your Club Dues

The DMRAA has just made it easier to pay for your club dues.

Just go to the post on the left **"DMRAA Meetings"** You will see at the bottom the Pay Now icon.

**Pay Now**



Click on the **Pay Now** and you will be taken to a PayPal page. Tell them you are a guest and how many years dues you would like to pay. Click continue and you'll be able to enter your card information. Click pay now and you are payed up. Couldn't be easier.

We had this option available for the annual Christmas Party and hope to use it for table reservations at the Des Moines Ham-fest.



## 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

## December 3rd, 2020 Board Meeting Minutes

### DMRAA Board Meeting Minutes

Tuesday, February, 2020

Meeting called to order at 7:04

#### In attendance:

Scott Kirstein, NØOOD (President)

Bill Claypool, NUØQ (Treasurer)

~~Rick Allen, NØCFL~~

Bob Johnson, WØSMS

Mike Waldron, AEØMW

Tom Weaver, NØTLW (Vice President)

Patrick McIntyre, KD9BBA (Secretary)

Ray Harden, WØRAY

Dennis O'Brien, KAØDOS

#### Review of minutes Jan 7

Correction to Christmas party cost

Expense 734.78

Order less turkey not ham

Weather service meeting not in the conference room but in the recital

Move to approve minutes, Bob motion to approve, Dennis second, approved

#### Treasurer's Report

23,834.83 (includes Paypal-2030.66) 25,865.49

Membership paid at chili feed, good through Dec of following year

#### Subcommittee Reports

Repeater/packet - None

Education

Oct 3 – Tech class

Oct 8 – General, Cost \$35, Exclude Thanksgiving Holiday

Maker Space in the spring for another class. This is tentative.

Field Day

Need email

Send email to other organizations

#### Ares Update

Quarterly meeting

#### Events

Mar 29<sup>th</sup> - Fight for Air Climb

May 9<sup>th</sup> – Market to Market

Aug 12<sup>th</sup> – Iowa State Fair

*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*

## December Board Minutes (cont)

Sep 26<sup>th</sup> – Rowing Regatta  
Oct 18<sup>th</sup> – Des Moines Marathon  
Nov 21<sup>st</sup> – Living History

**Programming**

Feb – National Weather Service

Mar - Open

Rick Iambic Paddle build? - Maybe

Solar Panel presentation – Dennis knows pharmacist in Urbandale that has implemented solar and has a presentation

Virtual reality presentation? – Dennis knows someone (Fake Space)

Apr - Elections

**New Business**

Fort Des Moines

Project to build shelving for antennas

50' Tower project

Form Committee for club station viability/establishment

Access to area

Potential for club presentation on existing/future activities

**Existing business**

Membership List

Mike membership committee leader

Software is expensive, even for not-for-profits

Google sheets/docs – Mike to explore

Bruce to provide list of email addresses

**Communications****Hamfest Committee**

Scott – DMRAA 2020 Hamfest date of April 25<sup>th</sup> is reserved

Commitment from Associated Radio

Motion to adjourn at 8:39, Seconded by Bob



# WØAK Board Minutes DMRAA

## March 10th, 2020 Board Meeting Minutes

### DMRAA Board Meeting January 2nd, 2020

Meeting called to order at 7:04

#### In attendance:

Scott Kirstein, NØOOD (President)  
 Bill Claypool, NUØQ (Treasurer)  
~~Rick Allen, NØCFL~~  
 Bob Johnson, WØSMS  
~~Mike Waldron, AEØMW~~

Tom Weaver, NØTLW (Vice President)  
 Patrick McIntyre, KD9BBA (Secretary)  
 Ray Harden, WØRAY  
 Dennis O'Brien, KAØDOS

Meeting called to order at 7:04

#### Review of minutes Feb 4

Move to approve minutes by Pat-KD9BBA, approved by Bob- WØSMS

#### Treasurer's Report

Balance 22,915.71

Paid insurance, state fair

#### Subcommittee Reports

Repeater/packet

Spare, old controller – Agreed to sell

Education

Oct 3 – Tech class, 1 day, Sat, \$100, includes pizza, material, testing

Oct 8 – General, 8 weeks, Cost \$35, Exclude Thanksgiving Holiday, includes testing

Maker Space in the spring for another class. This is tentative. Will do Technician class. No response back yet.

Field Day

Tom- WØFN – Sending out email to other organizations

Tom provided sample for review

Tom to visit organizations in person to promote

Email addresses are needed from Bruce

When the time is right the committee will bring forth a recommendation for an alternative site

*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*

## January Board Minutes (cont)

**Ares Update**

## Events

Mar 29<sup>th</sup> - Fight for Air Climb

May 9<sup>th</sup> – Market to Market

Aug 12<sup>th</sup> – Iowa State Fair

Sep 26<sup>th</sup> – Rowing Regatta

Oct 18<sup>th</sup> – Des Moines Marathon

Nov 21<sup>st</sup> – Living History

**Programming**

Mar - Virtual reality presentation

Apr – submit candidates for nominations, John Holbrook - tentative

May – Elections, Solar Panel presentation

June – Field Day Presentation. Field Day is the next weekend (June 27 &28)

**Fort Des Moines**

Committee formed - Tom Reiss-NØVPR, Tom Weaver- WØFN, Dennis-KAØDØS,  
Mike--AEØMW, Bob- WØSMS

Project to build shelving for antennas - Complete

50', possible 60' Tower – locate outside shack window. April project

Insurance equipment and liability ARRL policy discussion

Announcement at club in March

Access – Fort DSM Board. Establish criteria for access

**Existing business**

Membership List – No update

Mike- AEØMW membership committee leader

Software is expensive, even for not-for-profits

Google sheets/docs – Mike to explore

Bruce to provide list of email addresses

**Hamfest Committee**

Scott – DMRAA 2020 Hamfest date of April 25<sup>th</sup> is reserved

Commitment from Associated Radio

Emails to HAM clubs in Iowa with a PDF

Motion to adjourn at 8:01 - Pat, Seconded by Bob

# ATV! WHAT?

By  
Larry KAØFTO

Ok so why is there an article about an All Terrain Vehicle in the Static Sheet?

AHA this ATV is also known as FSTV or Fast Scan Television. In this case ATV is Amateur Television. So why the interest now? Why not?

I have been involved with the Rowing Regatta since 2011, and just thought, how about a Video Camera and ATV Transmitter at the Start Line and a Cable Ready Receiver tuned to CATV channel 60 at the Finish Line! Keep in mind this would not be HD TV!

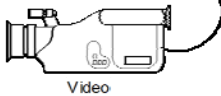
## ATV Setup.

Line of site is best.

I have a 10 element  
uhf beam antenna  
with N connector.



12 vdc 1A.



ATV Transceiver  
with N connector.

Transmit  
Cable channel  
58=426.25mhz  
or  
60=439.25mhz

**NOT DIGITAL TV  
IS ANALOG TV.**

It is usual to use 2 Meters  
to set up communications  
as not all Video cameras  
have a microphones.

I have a uhf  
TV beam  
antenna.

TV with Cable  
Ready  
Channels.

Cable TV  
channel 58=426.25mhz  
or  
channel 60=439.25mhz

Not regular channels  
58 & 60.

**Botanical Gardens**  
Start Line with camera  
pointed to river.

**Prospect Park at**  
Finish Line.

Many of you are familiar with SSTV or Slow Scan Television that sends a single photo in up to 3 minutes, depending on what mode you are using. The transmission is slow because of the amount of data you are exchanging and the limited bandwidth you have to work with.

SSTV =Can use many of the HF bands with a popular one being 20 meters at about 14.230 MHZ. The range is limited only by normal SSB from your station. You can trade pictures with anyone you can talk to on SSB. That is another story!

FSTV or ATV=Because of the very wide bandwidth the use is limited to 440MHZ and above. What is the signal? It is full motion real time color video with audio!!!

With the proper conditions it is as good as Analog TV was before everyone went



more  
up to

to High Definition. Keep in mind the propagation is just like 440 FM but critical as you try for snow free Video. The frequencies used almost match

Analog Cable channels 57-60. Check Broadcast channels 57-60 and they are on totally different frequencies. Analog Cable Channels do not get transmitted out over the air!!! 57=421.25, 58=427.25, 59=433.25, 60=439.25 are the channels with channel 58 & 60 are used the most and is what I have. The transmitter used is special equipment and can cost \$150 and above for circuit boards, if you want to put your own together and provide your own case. My unit a PC ELECTRONICS TC70-1 provides approximately 1.5 watts out and requires 13.8vdc at about 2 amps. It was \$315, with 2 channels in 1988 dollars. Compare that to Commercial TV at 50,000 watts and above with Antenna's on 1800 foot towers. I have a 15 watt special amplifier but have used it just once as I recall. I actually traded Video with Ham down in the valley north of Indianola and he was using a VHS VCR to receive but do not remember his Transmitter? It has been 1989 since I have used my equipment! I even had two each 440MHZ 10 element beams that I mounted at approximately 55 feet with one Horizontal and the other one Vertical. I used the Horizontal one for the trip to Indianola. Do not try using RG58 or RG8X as the loss at 440MHZ would defeat the gain of the beam. Oh yes the unit and the Beams have N connectors!

Will my equipment stand up to about 8 hours for the event? Most TV's will still tune to the Analog Cable Channels. Regular TV Channel 60 no! Digital Channel 60 no! CATV Channel 60 yes. CATV=Cable Analog TeleVision. Just find an old TV antenna or UHF TV antenna and RG6 cable to connect from your antenna to your TV set and you are in business to receive. Anyone can monitor your signal and do not need any kind of Licenses just to monitor.

OK here is one possible **GOTCHA!** If I were to test now with the equipment in the field at the location where it will be during the event- **there are no leaves!** When the event is held the trees will be heavily leafed out and how much will they attenuate the signals? Think of trying to run Simplex with just 1.5 watts at 440 MHz. Snow free signals almost require line of site! With line of site your distance can be many times longer than through trees and other structures.

What Licenses to you need to Transmit? Technician and above is all that is required. You must of course identify with your call letters every 10 minutes. I have had my Transceiver setting on a shelf above my operating desk since 1998. I put it back together in my basement and used the TV antenna that is above my garage that I can access with our 50" Plasma HD TV in our Living room, for receiving. The distance must be 30 feet at the most through walls. This is not DX but it is a bit cold to mount my beams on my tower now. The Video Camera that I am using is a Color GE CG9806 HQ Movie Video System VHS camera from before 1990. The original Video Camera I tried was unusable but I remembered my old VHS Camcorder!

There were many active clubs that even had ATV repeaters but just checking now could not find any. Davenport had an ATV repeater with input 910.25 MHZ and output of 421.25 MHZ per the Internet but last update was 2012! My 2012 Repeater Directory does not even show that one. When you compare the cost and the limited range, interest of Hams, that

change as did mine the repeaters disappear? I seem to remember many years ago at the Rose Bowl parade some HAMS there had cameras on their Helmets with a small Transmitter and were riding around passing Video to a central location that was retransmitting it. I have not heard anymore about it. The commercial TV folks have Millions of dollars in outstanding equipment so that probably eliminated that.

I trying to recruit NØVPR to put up a TV antenna and point it in my direction for testing.

I am not having any luck so far. By the time this article gets published I may have information on that.

I ran a test (December 20<sup>th</sup> 2019) of 2 miles between my QTH and Oakwood Church in Pleasant hill. Results were terrible! Picture, like #8 below, was barely there through the snow!

I used just 1-1 ½ watts of power (should have used 15 Watt amplifier).

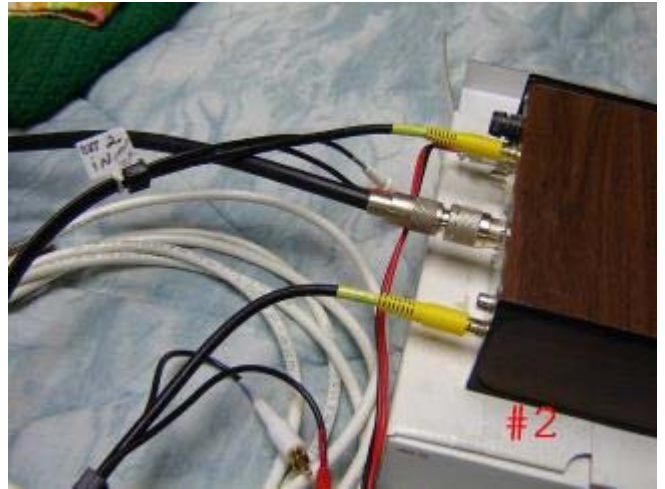
Transmit Beam at my Transmitter was just 10 feet high.

I used 100' of RG8 Belden 8214.

Receive old UHF antenna at the Church was inside behind a wall at 7'.

So here of course are some of my photos.

1. The front of my TC70-1 with the controls almost visible.
2. Here is the rear of the unit with Power, Monitor, Transmit/Receive N connector, and Video in.
3. My complete studio with-  
OLD VHS Video Camera mounted on a Tripod.  
Note the white card above the camera that is my QSL card.  
Just to the right on the floor is 13.8v supply, for the TC70-1,  
plus power and video/audio connection for the Video Camera.  
The red TV is used as a Monitor of my Transmit signal.  
The TC70-1 is just to the right.  
The small 7" black/white TV is tuned to a Harmonic of my signal.
4. Close up of the B/W TV tuned to a Harmonic in the UHF band.
5. Red Monitor TV and my Transceiver TC70-1.
6. A closer photo of my TC70-1, note the Red Transmit light on.
7. A close up photo of my QSL card taped to my Tread Mill.
8. My received signal on our 50" Plasma ~~Noise-generator~~/TV. I zoomed in with the Camera.
9. Another photo of my received signal of the Globe in the corner. See photo 12.
10. I changed the White Balance on the Video Camera.
11. Returned the White Balance on the Video Camera and increased the Video Gain.
12. Digital photo of my studio again with the camera pointed to the Globe in the corner and the Monitor TV of the Transmit signal.





73 Larry KAØFTO



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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  
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Des Moines, IA 50301

