



# FOND DU LAC AMATEUR RADIO CLUB

## — FDL 73 —



VOLUME 20 ISSUE 6

www.fdlhams.com June, 2019

Join Us On Sunday Evenings For Our Weekly Net — 1930 hrs. 145.430 MHz — Tone 97.4 Hz

### Club Officers

President: Buddy Larson KC9UVJ  
Vice-President: Tom Karmann KC9VZY  
Secretary: Lloyd Vandervort N9RPU  
Treasurer: Doug Schultz N9EZF  
Sgt-at-Arms: Paul Bleuel KC9NAA

Board Member: Ron Keller KC9YVL  
Board Member: Dick Finn KC9ZVW  
Board Member: Larry Mielke KC9RUE

### Committee Chairs

Contesting/  
Education/  
Scholarship: Jack Heil KG9IN  
Field Day: Jack Heil KG9IN  
Fund Raising: Open  
Net Manager: Doug Schultz N9EZF  
Newsletter: Dick Finn KC9ZVW  
Public Service: Ed Beltz N9PJQ  
Publicity/Program: Joe Scheibinger K9VY  
Repeater: Lloyd Vandervort N9RPU  
Testing: Doug Schultz N9EZF  
Truck: Brad Freund KC9QYP  
TVI: Lloyd Vandervort N9RPU  
Web Site: Tim Braun W9AAV

Each committee has several members. If you are interested in serving on a committee, please contact the chairperson and volunteer your services.

### Mailing Address

Fond du Lac Amateur Radio Club, Inc.  
PO Box 53  
Fond du Lac, WI 54936-0053  
E-mail: fdlhams@fdlhams.org

**Newsletter  
Submissions:**  
Please email to  
rfinn5@hotmail.com

### Field Day 2019

By Tom Powell KC9VXR



Field Day is June 22-23. The many tasks necessary for us to participate in this event have been divided into 11 activity groups - Management/Coordination, Antennas, Networking, Food, Stations, Emergency Power, Logistics, Public Affairs, Safety and Security, Manpower, and Competition. Each of these groups will have a Leader who is responsible to complete the tasks for that group.

Training will be emphasized this year and some of the areas that require specific knowledge and experience have designated "Trainees". "Assistants" will be backups for the Leaders and we will all be "Helpers". Hopefully, this method of assigning tasks will:

- Promote hands-on learning with Leaders passing their knowledge and experience.
- Allow all club members to contribute meaningfully to the event.
- Promote shared responsibility.

We will begin setup on Saturday, June 22 at 8am and operate stations from Saturday afternoon through Sunday morning with take-down Sunday afternoon.

Club members are requested to participate as Leaders, Assistants, Trainees, Helpers, Station Operators, Loggers or in any way they can to make this a successful event, to learn and to have fun!

Tom Powell, KC9VXR  
Field Day Coordinator



### Next Meeting

**When:** May 10, 2019 at 7:00 pm

**Where:** Moraine Park Technical College, Room A-112  
235 N National Ave, Fond du Lac, WI 54935

**Program:** John Kruk from Yeasu



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**John Kruk from Yeasu  
Will Speak at  
FARC Meeting in June**



Our June meeting for Monday the 10th will feature National Sales manager for Yaesu, John Kruk N9UPC. John will be appearing in person and will bring along some of the new items Yaesu has to offer. Yaesu Fusion and digital communications will be a part of the presentation and may be the direction that ham radio is now evolving.

John has an extensive background in communications and emergency management from the hands on world of the test bench to the actual field operations and implementation. He has a wide and varied background with all types of communications and now serves as the Sales Manager for Yaesu USA.

To get an idea of what the new Fusion system is, here is a link to a YouTube presentation. <https://youtu.be/t9VVkx0ANas>

(On a side note, when I asked John to be a guest for our club meeting, I told him that we would be happy to pay a stipend to help him with his fuel costs. John turned me down and said something I will remember for a long time. John said "you are only 4 ½ hours away, don't worry about it." Then I said one of the members would love to have him as a guest overnight and he said "I already have a hotel lined up." I'm not kidding! Here is a class act that loves his hobby, and a company that truly appreciates their customers. This will be one of our best presentations yet and I encourage you to attend on June 10th.)



*Picture: John Kruk – N9UPC  
National Sales Manager  
Amateur Division - Yaesu USA*



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### First Brat Fry of 2019 May 31—June 1, 2019

Well the first Brat Fry of 2019 is now in the books and thanks to the fine leadership job by Doug Schultz N9EZF— and a host of volunteers—it was a great success. I would have to say the weather could have been a little bit better but still, things worked out well.



We certainly owe a vote of thanks to Jack Heil KG9IN for picking up the Yellow Banana on Thursday and delivering it (along with all the Brat Fry equipment) the day before the event.

Dick Finn KC9ZVW picked up the refrigerated trailer from Hoff's Meat Market in Brownsville at 7:30 am Friday (5/31/19) and was on site with it about ten minutes later. The traditional early morning set up crew of Doug Schultz N9EZF, Dick Finn KC9ZVW and Lloyd Vandervort N9RPU was short one member as Lloyd was still recovering from a heart attack. The word is that he is doing well and scheduled to start cardiac rehab soon.

Doug and Dick set to work on unloading the Yellow Banana and getting the boiler going and the grill set up. They were joined by Joe Lauber KC9MDY who shouldered the job of setting up the equipment in the building. This was no small task but Joe did a great job and soon had the warming roasters going so we could get started on the grilling.

Many thanks to all of you who came to help out. We'll have a complete list of the volunteers for the next newsletter along with the results of the Brat Fry.



*Joe Lauber KC9MDY  
fills the coolers with ice and soda after getting  
the roasters ready for the brats and burgers.*



*Cully Kowal KSOD and Doug Schultz N9EZF  
take a breather after the setup is  
complete.*



*Jack Heil KG9IN checks the brats being pre-cooked in the boiler. He then headed back to the grill to continue  
with the first of the hamburgers.*







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### First Brat Fry of 2019 May 31—June 1, 2019



By noon Friday we were running at full speed. Joe Lau-  
ber KC9MDY helped while Doug Shultz was busy  
counting the money while Chuck Mahnke K9KHXL and  
the multi talented Jack Heil KG9IN not only cooked but  
helped serve.



Manning the counter on Saturday afternoon right before  
closing up shop are Mar Jean Buck KC9LFI and Neal Buck  
KC9LFN . When I got there to pick up the trailer to re-  
turn to Hoff's there were three brats and three  
hamburgers left.



We greatly appreciated Peter Fox KB9WZD and the clean up crew for the fine job they did getting the grill and other  
equipment cleaned up and ready for August Brat Fry. You can Imagine how greasy it was after cooking hundreds of  
brats and burgers.





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**First Brat Fry of 2019**  
**May 31—June 1, 2019**







### Vintage Amateur Radio de Bill Shadid, W9MXQ



Some months ago, earlier in this series of Vintage Amateur Radio Articles, I talked about “The Day the Universe Changed,” a phrase coined by historian, James Burke,<sup>1</sup> and how it related to the Collins Radio Company introducing the game changing S-Line 75S-1 Receiver, 32S-1 Transmitter, and the KWM-2 Transceiver. As you have seen in my various articles, this triggered a response from nearly all the established, and some new, amateur radio equipment manufacturers. While there were a lot of products and many versions of the Collins concept of the new age in radio equipment, perhaps no one went after the concept more intensely than The Heath Company – or as we know them, Heathkit. So, for this article we will start the discussion of the extremely popular Heathkit “SB-Line.”

Heathkit, in 1965, introduced the first of their competitive radios with the SB-100 Transceiver<sup>2</sup> in direct competition to the Collins KWM-2. The radios were nearly identical in specifications and even physical size and layout. Heathkit even used the concept of a permeability tuned oscillator – variable inductance tuned oscillator or PTO – for the VFO rather than the more common capacitively tuned oscillator. This was a hallmark of Collins’ design. (Actually, in the ham radio field of the time, both Heathkit and Drake followed Collins’ lead in this circuitry.)

The SB-100 was a 180-watt input SSB and CW Transceiver – just as was the Collins KWM-2. The two radios were nearly identical in size – but the Heathkit enjoyed a very large monetary savings for the amateur radio operator by being offered only as a kit to be assembled by the user. The Heathkit SB-100 was priced at only a fraction of the cost of the Collins KWM-2 back in 1965. And, Heathkit was widely known for the design quality of its kits with their “We won’t let you fail!” business philosophy.

Here is the operating Heathkit SB-101 Transceiver at W9MXQ: (The SB-101 superseded the SB-100 but they are very difficult to distinguish from each other as noted later.)



**Heathkit SB-101 (successor to the SB-100) with SB-600 Speaker. Shown with HP-23 AC Power Supply mounted inside of the SB-600 (out of view)  
(W9MXQ Shack Photo)**

To get a better idea of the physical similarities in the front panel controls and physical size of the Heathkit SB-101 and the Collins KWM-2, look at these two radios at W9MXQ for your reference:



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### Vintage Amateur Radio de Bill Shadid, W9MXQ



**Heathkit SB-101 HF Transceiver**



**Collins KWM-2A HF Transceiver**

Both Radios – W9MXQ Radio Collection

One difference visible in the above views is the main tuning dial. You will note the band spread dial at the top of the readout area on the Heathkit along with the main tuning dial calibrated 0-500 (for a 500 kHz band segment). The upper, horizontal, dial indicated a rough approximation of the moving across the 500 kHz tuning range. The lower, round dial showed the exact, down to 1 kHz markings, of the place in that range. The round dial included a spiral “gear” that moved the indicator on the horizontal drive. Well assembled radios showed a very accurate mechanism with good linearity across the 500 kHz range.

Collins used a different, but no less effective, dial mechanism with two disks in an epicyclical drive mechanism. You can see the numbers in the dial and see a separate disk with white colored, opaque covers to only allow certain numbers to show in different revolutions. So that dial would move from 1-200 kHz over multiple revolutions with only the correct 10 kHz numbers showing as the knob was turned. Also see that Collins used 0-200 ranges instead of the 0-500 range for the individual bands. So, for instance, on 40 meters, the Heathkit would scale from 7.000 MHz to 7.500 MHz whereas the Collins, with its 200 kHz ranges would cover 40 meters in two band positions – 7.000 to 7.200 kHz and 7.200 kHz to 7.400 kHz. This is perhaps a bit inconvenient but on a band like 10 meters, it could get very inconvenient.

The reason for the narrow band coverage on the Collins radio addressed an issue with analog tuning of the day – linearity. The Collins design allowed for perhaps a single setting with the crystal calibrator at any place in the 200 kHz range and the readout would be accurate, or darn close, along the entire range. The typical 500 kHz range used by Heathkit (and most other manufacturers of the day) were not so linear along a 500 kHz run in frequency range. Heathkit was better than some of the others but Collins did have the right idea – even if it was a bit inconvenient.



## Vintage Amateur Radio de Bill Shadid, W9MXQ



Both radios use a similar final amplifier arrangement with loading set at a range of 50-75 ohms impedance — designed to feed modern coaxial cable. These radios would not work well with linear amplifiers that did not have a tuned input network. So, the modern, at the time, SB-100 and its successors, did not work well with older Heathkit Linear Amplifiers, such as the HA-10 Warrior. The final amplifier tubes used in the SB-100 Series Transceivers were two of the very popular 6146A or 6146B tetrode final amplifier tubes for an input power of 180 watts PEP SSB and CW. Like the Collins KWM-2, these radios were not really designed for AM operation. Output power was a nominal 100 watts. Tuning of the driver and final amplifier stages of the transmitter section of the transceiver was relatively straight forward and easy even for today's amateur operators to master.

Heathkit provided a complete line of accessories for the SB-Series Radios (including a complete line of separate receivers and transmitters<sup>2</sup>). Most of the most popular accessories appear in the pictures, below . . .

		
<b>SB-200 1.2-Kilowatt Linear Amplifier<sup>3</sup></b>	<b>SB-220 2-Kilowatt Linear Amplifier<sup>3</sup></b>	<b>SB-640 External VFO</b> (Heathkit Catalog)
		
<b>HP-23(x) AC Power Supply</b> (for SB-100 Series Radios)	<b>HP-13(x) DC (Mobile) Power Supply</b> (for SB-100 Series Radios) (HP-13 Assembly Manual)	<b>SB-600 Speaker Console</b>
		
<b>SB-610 Monitor Scope</b>	<b>SB-620 Spectrum Scope</b>	<b>SB-500 Two-Meter Transverter</b> (Heathkit Catalog)





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### Vintage Amateur Radio de Bill Shadid, W9MXQ



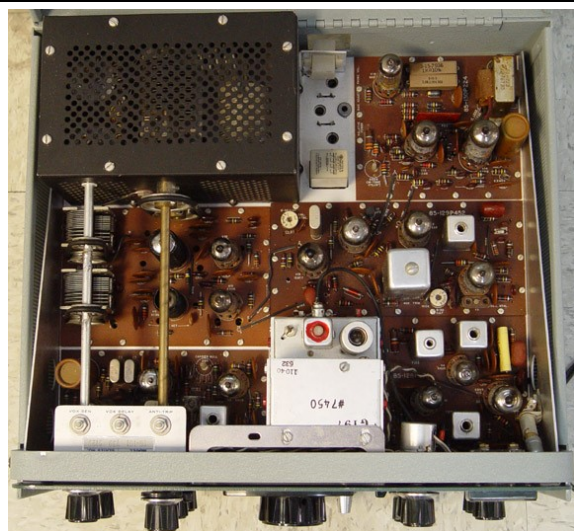
		
<b>SB-630 Station Console</b>	<b>HD-1410 Electronic Keyer</b>	<b>SB-650 Digital Readout</b> (for SB-100 Series Radios) (Heathkit Catalog)
(Pictures, unless otherwise noted, are from W9MXQ Photographs)		

Virtually all the accessories, were compatible with most other brands of radios of the day, except for frequency related items such as the SB-640 External VFO, the SB-620 Spectrum Scope, the SB-500 Two-Meter Transverter, and the SB-650 Digital Readout. But some enterprising hams found ways around even that restriction. The SB-200 and SB-220 Linear Amplifiers were some of Heathkit's most popular products and operate today in large numbers<sup>3</sup>. As implied earlier in this article, the sizes of the Heathkit items, including the transceiver itself, matched the Collins sizing almost perfectly. The only difference for a good match was the green on green colors of the Heathkit vs the gray on gray colors of the Collins.

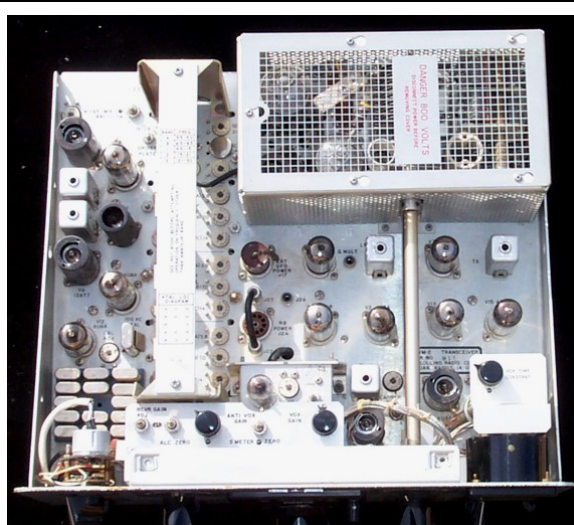
There are some simplicities in the Heathkit design. In the left picture below, see the overall main circuit board that contains all vacuum tube and interstage wiring — there are few interconnection wires in this transceiver, as you can see. The Collins, in the left picture below, has a clean and overall classically simple appearance — perhaps enhanced by the metal chassis color compared to the brown circuit boards in the Heathkit. Also note the multistage ganged variable capacitors at the left center of the Heathkit. These are replaced by a multistage ganged group of variable inductors in the Collins radio that are visible under a cover running from the front to the back of the radio just to the left of center in the view shown below. Collins had a much more elegant (and expensive) design. Collins was good at small details — such as the way the top cover of the power amplifier shield was affixed. Note that the fastening screws would be loosened then the cover would slide left then lift off — without the need to remove (and perhaps misplace) those screws. Collins equipment is full of such fine touches in design.



### Vintage Amateur Radio de Bill Shadid, W9MXQ



**Top Interior View  
Heathkit SB-100 Series Transceiver**



**Top Interior View  
Collins KWM-2 Transceiver**

(W9MXQ Collection Pictures)

Both radios have a lock down top cover that swings open from a hinge along the rear of the cabinet. The illustration of the Heathkit, above, has the radio sitting in the cabinet with the top open so you can just spot the hinge at the right, rear. The Collins picture shows the radio completely removed from its cabinet – with no hinge visible. The Heathkit top fasteners were on the upper left and right sides of the top cover. The Collins cover locked down along the front edge of the top cover – you can see the fastener holes toward the front in the above picture of the Collins radio,

There were three versions of the SB-100 Transceiver. They were known by the following differences . . .

SB-100 Transceiver (1965-1967) – the initial release of the radio. Effectively duplicates most performance specifications of the Collins KWM-2.

SB-101 Transceiver (1967-1970) –The SB-101 added the ability to switch in and out a 400 Hz CW filter. That switch is ganged with the RF Gain control on the front panel. The SB-101 added some additional phono jacks on the back to more easily accommodate the SB-650 Digital Readout and the SB-500 Transverter.





### Vintage Amateur Radio de Bill Shadid, W9MXQ



SB-102 Transceiver (1970-1975) – this model is the most numerous. The SB-102 improved sensitivity from 1  $\mu$ V to 0.35  $\mu$ V by replacing the RF Amplifier 6AU6 with a 6HS6. (6HS6 tubes are hard to find today so many SB-102's have reverted back to the direct plug-in replacement 6AU6.) There was a kit offered at the time to convert the SB-101 to an SB-102<sup>5</sup> with the increased sensitivity of the later model.

There was no SB-103 offered for sale, but Heathkit made a quantum leap with the introduction of the all solid-state SB-104<sup>3</sup> that we will talk about in a future article.

The one item that can impact finding a good SB-100, SB-101, SB-102, or any Heathkit, is to remember that most of them are assembled by the owner. So, finding a used one puts the buyer at the mercy of the talent and care of the original builder. Look carefully for damaged components, burned wires, and quality of soldering. While the SB series were economical, they were not cheap. So, given the size of the initial investment, it is not impossible to find finely made equipment. My SB-101 Transceiver and my SB-200 Linear Amplifier were expertly assembled. (In fact, my SB-200 is a very rare, factory assembled unit<sup>4</sup>.) However, I have three HP-23 AC Power Supplies at W9MXQ. One is very well done (and is used with my SB-101), the second is sloppily wired and stored for parts, and the third one was so poorly made it caught fire in its initial test! That last one is destined to be completely rebuilt with perhaps only the original power transformer, chassis, and hardware being left in the finished unit.

If there is one Heathkit failing it is in the area of color matching. Especially the darker (front panel) green they used over the years. It is not unusual today to encounter an SB-100 Transceiver, an SB-600 Speaker, an SB-640 External VFO, and an SB-200 Linear Amplifier in a vintage station with all showing distinctly different shades of front panel green. In my opinion as a collector of many brands, Hallicrafters and Collins were the best at color matching over the long term. National and Heathkit may have been among the worst. At the same time, we must remember that this is not a reflection on the technical quality of their products.

Heathkit leveraged the SB-100 series designs to make the very economical HW-100 and HW-101 series HF Transceivers<sup>3</sup> that we will cover in the future. That is a most interesting story. Late versions of the Heathkit catalog (the Heath Company in Benton Harbor, Michigan) always said that the HW-101 Transceiver was most popular and numerous ever made. They are still present in abundance and can be found at almost every hamfest that I attend.

Remember that the Heathkit SB-Line Transceivers (along with the separate SB Line Receivers and Transmitters, when carefully built, were the equal of or were superior to any of the fully assembled competitive units on the market at the time.

I appreciate that you read my articles. Remember that I am open to questions and comments anytime at my email address, [W9MXQ@TWC.com](mailto:W9MXQ@TWC.com).

A special note of thanks to my proofreader, Bob Bailey, W9DYQ.

#### Credits and Comments:

<sup>1</sup> [https://en.wikipedia.org/wiki/James\\_Burke\\_%28science\\_historian%29](https://en.wikipedia.org/wiki/James_Burke_%28science_historian%29)

<sup>2</sup> The first of the SB-Line was the SB-110, 6-Meter Transceiver – that was an SB-100 look alike. Due to some supplier issues it was released about six months ahead of the SB-100.

<sup>3</sup> Subject of a future article.

<sup>4</sup> Factory wired SB-101 Transceivers and accessories such as the SB-200 Linear Amplifier can be spotted by their serial label which instead of, for instance, "SB-200," it will say "SBW-200." A factory wired SB-101 would be identified as an "SBW-101." This was a marketing idea by Heathkit to attract customers who wanted the Heathkit radio but did not want to build it. Also, at that time, there were specialists around the country who would, for a fee, assemble any Heathkit for a paying customer.

<sup>5</sup> The SB-102 update for the SB-101 did not accommodate a change in the front panel model number.



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### MEETING MINUTES

#### FOND DU LAC AMATEUR RADIO CLUB

#### Minutes of FDLARC Monthly Meeting

Monday, May 13 2019



#### Call to Order

The meeting was called to order at 7:01 pm with vice president Tom Karrmann KC9ZVY presiding.

#### Program:

Our speaker for the evening was Tim Czerwonka and was moderated by Jack Heil KG9IN.

Tim gave a video tour of the University of Wisconsin W9YT ham shack on the 16 floor of one of the engineering buildings on campus.

He was first licensed in 1989. He is now a network engineer for the UW campuses.

The club station started in 1930.



Their field day preparations are usually informal and done the night before.

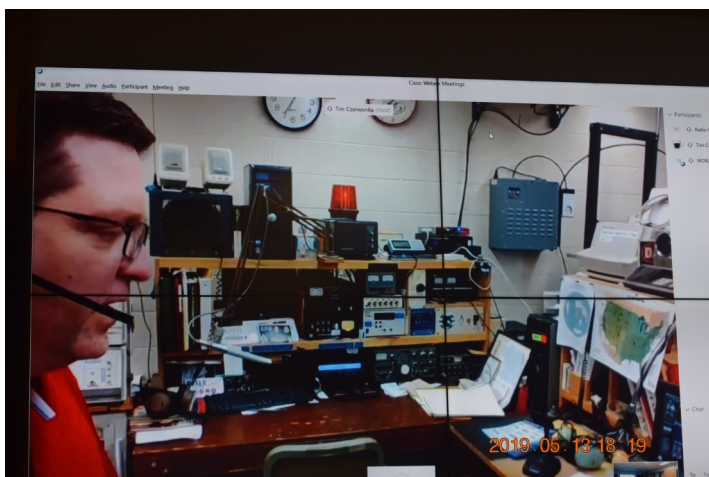
Tim told us that the antennas on the top of the 16 story building have to be rated more than 120mph.

They have the Amateur Radio Education Foundation of S.W. Wisconsin.

They have had a 2 hour license class for students that already know the theory.

With their 501.c3 they have acquired a lot of equipment.

They have a scholarship program that may give as much as \$1000 to deserving students.



#### Introductions:

All attendees introduced themselves.

#### Approval of Meeting Minutes:

A motion was made by Dave McCumber N9WQ to approve the minutes this was seconded by Cully Kowal KS0D and approved by a voice vote.

#### Treasurer's report

The Treasurers Report was presented by Doug Schultz N9EZF. A motion to approve the Treasurers Report was made by Tom Powell KC9VXR and seconded by Peter Fox KB9WZD. The motion carried unanimously via a voice vote.

Truck Fund	0.00
Emerg. Services Fund	1,484.67
General Use Fund	4,893.40
Savings Account	25.00
Petty Cash Fund	19.12
Total	6,422.19
Repeater Fund	231.44





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### MEETING MINUTES

#### FOND DU LAC AMATEUR RADIO CLUB

#### Minutes of FDLARC Monthly Meeting

Monday, May 13 2019



One bill (for Truck insurance) was presented by Doug Schultz N9EZF with the caveat that it had not yet arrived in the mail. Doug was able to provide an estimate as to its amount. A motion to approve the truck insurance up to \$600 was made by Justin Buell KB9YET and seconded by Cully Kowal KS0D. The motion carried unanimously via a voice vote.



#### New Business:

Field day is scheduled for June 22-23. Jack Heil KG9IN stated that due to Marge's illness he will not be able to manage field day this year. Tom Powell KC9VXR has agreed to shoulder the responsibility.

Tom stated that he will need more help to delegate responsibilities and will delegate sub categories. The following are the categories and the names of those who volunteered to coordinate the efforts.

- Antennas: Peter Fox KB9WZD
- Networking: Buddy Larson KC9UVJ and Jim Balthazor K9AIX
- Food: Dawn Krause KD9CAW
- Stations:
- Power / generators:
- Logistics:
- Public affairs: Joe Scheibinger K9VY
- Safety officer:
- Man Power: Justin Buell KB9YET
- Competition Points: Doug Schultz N9EZF



Jack Heil KG9IN mentioned that we could run 3A but Peter Fox KB9WZD said that 2A would be better as last year we had problems manning the stations overnight. If it turns out that we have plenty of operators we could still run as 3A.

Dave McCumber N9WQ said that he will be able to bring the truck to the site and help to tear down. Setup starts 8:00 am Saturday morning,

Dave McCumber N9WQ mentioned that there are several antennas a 13b2 and a ta33 available from a silent key. Contact Dave if anyone is interested.

The first Brat fry of the year will be on May 31/June 1 at the I41 truck stop in Lomira.

Next month we will have Yaesu's North American Sales manager as our speaker. Larry Mielke offered to put him up for the night.

#### Adjournment

A motion was made to adjourn by Lloyd Vandervort N9RPU. The motion was seconded by Justin Buell KB9YET. The motion carried unanimously via a voice vote and the meeting was adjourned at 7:32pm.

No Raffle



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### NOTICES/ANNOUNCEMENTS

#### FDLARC On YouTube



Many of you may not be aware, but Lloyd Vandervoort N9RPU, our Club Secretary, has been making videos of the presentations at our meetings. There is now a pretty large collection of them on You Tube. Do yourself a favor and take a few minutes to scan the list and play some of them. Enjoy!

FARC - W3AO Field Day Presentation <https://youtu.be/UK1A47pNKyo>

FARC - Bob Heil Ham Radio Presentation [https://youtu.be/t3Ueh9IN5\\_U](https://youtu.be/t3Ueh9IN5_U)

FARC - WWV Presentation [https://youtu.be/w3-DP9DEv\\_U](https://youtu.be/w3-DP9DEv_U)

FARC - Pacific Antenna Talks Kit Building <https://youtu.be/SBReL2YIsn0>

FARC - Scanner Master Presentation <https://youtu.be/dlSIAufGkv8>

FARC - WBAY Field Trip TV Nov 17 2015 <https://youtu.be/sfQvJ1fV6eo>

FARC - WBAY transmitter tour [https://youtu.be/NnZ21O\\_6HvA](https://youtu.be/NnZ21O_6HvA)

FARC - NooElec [https://youtu.be/s\\_pxYkH4xds](https://youtu.be/s_pxYkH4xds)

FARC - Elecraft Radio <https://youtu.be/3Ou1Qpx9Vg8>

FARC - Ed Tobias & Morse Code <https://youtu.be/9uu4PFMrH2U>

FARC - Salvation Army Emergency Communications <https://youtu.be/oxXoZjuTTNE>

FARC - KFIZ Interview <https://youtu.be/UVFMCvRGEJE>

FARC - HAARP Presentation <https://youtu.be/cdeNXLMuyEE>

FARC - The DZKit Ham Radio Kits [https://youtu.be/giZcfQW\\_tpA](https://youtu.be/giZcfQW_tpA)

FARC - The DZKit Ham Radio Kits [https://youtu.be/giZcfQW\\_tpA](https://youtu.be/giZcfQW_tpA)

FARC - The Christmas Island DXpedition with Bill Kendall (4/9/18) <https://youtu.be/XgjYL0vAhlw>

FARC - Restoring Old Antique and Classic Radios (5/17/19) <https://youtu.be/3l352v4gYdw>

FARC - Dave Sumner K1ZZ, Secretary of the IARU (1/14/19) <https://youtu.be/fVzhzhUpYlw>

#### Newsletter Back Issues

When I took over as the newsletter editor I simply continued the volume numbering that existed then. Unfortunately, I don't have copies of those old newsletters. I would appreciate it if you have any newsletters earlier than October, 2014 you would send them to me. Electronic copies are ideal but I would also be pleased to accept hard copy. I'll scan them and return the originals to you.

Many Thanks, Dick Finn KC9ZVW





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www.fdlhams.com June, 2019



Join Us On Sunday Evenings For Our Weekly Net — 1930 hrs. 145.430 MHz — Tone 97.4 Hz

### NOTICES/ANNOUNCEMENTS

#### HAM Testing Session

The Fall dates for testing will be rolling around soon (the first is on October 12, 2019). This still gives you plenty of time to prepare to upgrade your ticket. If you have questions or want to reserve a spot (note: reservations are not required but do help us to be aware of how many may be coming) please contact Doug Schultz at 920-922-3088 or via email at [schultz74@charter.net](mailto:schultz74@charter.net). There's still plenty of time to crack the books and prepare to upgrade your ticket.



#### Equipment for Sale

The following comes from Allen Sens in Oshkosh. If you are interested please contact him at the phone number he notes in the ad.

I have a Alinco Dual band mobile (2m/440). It is three 3 years old used by the bed in great shape in box with \$339.99 for it.

Other stuff I have a CB mobile Galaxy 959 with Frequency Counter that will come with regular mic, power handheld mic, two mobile mag. mounts. I just don't use CB any more. There's about 28 watts on SSB, AM is about 18 watts. the price on the CB radio, the 2 antennas, extra mic.,etc.. \$ 100.00 for it all.

Waiting to hear from a guy in Fondy about selling my mobile 10 meter antenna it's 62 in. long it take one of those 3 or 4 mt. mag's. If I don't sell to that guy it would be \$20.00. Never been outside

I also have an Arrow dual band j-pole that has never been outside with me living in an apartment.. I paid \$39.00 for it and boy I just saw these now for \$ 60.00. I would like to get \$ 30.00 for, I can only do so much with antennas but it does work really well. I just bought a Comet 5 ft. with more gain just fit's in side.

I can be reached at 920 426-1851 if not there leave message for sale items.

Thanks much.  
Allen Sens N9QLP.





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## Free, For Sale or Wanted

### Upcoming HAMFESTS and Conventions From ARRL

## Hamfests

#### 07/06/2019 | South Milwaukee Amateur Radio Club

**Location:** Oak Creek, WI

**Type:** ARRL Hamfest

**Sponsor:** South Milwaukee Amateur Radio Club

**Website:** <http://www.qsl.net/wa9txe>

**Learn More**



#### HAMFEST/CONVENTION

#### 07/20/2019 | Chippewa Valley Tailgate Swap Fest

**Location:** Chippewa Falls, WI

**Type:** ARRL Hamfest

**Sponsor:** Chippewa Valley Amateur Radio Club, inc. W9CVA

**Website:** <http://w9cva.org/tailgate>

**Learn More**



#### HAMFEST/CONVENTION

#### 08/10/2019 | Free Fest

**Location:** Racine, WI

**Type:**

**Sponsor:** Racine Megacycle Club

**Website:** <http://w9udu.org>

**Learn More**





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### 2019 CALENDAR

#### Jan. 14, 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112.  
235 N National Ave, Fond du Lac, WI 54935

#### Feb. 11, 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112.

#### Feb. 16, 2019

License Exams, 9:00 am-Noon, Moraine  
Park Technical College in Room O-104  
Contact: Doug Schultz N9EZF



#### Mar. 9 & 10, 2019

Wisconsin QSO Party



#### Mar. 11, 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112.  
Annual Membership Drive-Contact Joe Scheibinger  
235 N National Ave, Fond du Lac, WI 54935

#### Apr. 8, 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112.  
235 N National Ave, Fond du Lac, WI 54935



#### Apr. 13, 2019

License Exams, 9:00 am-Noon,  
Moraine Park Technical College in Room O-104  
235 N National Ave, Fond du Lac, WI 54935  
Contact: Doug Schultz N9EZF

#### May 13, 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112.  
235 N National Ave, Fond du Lac, WI 54935

#### May 17—19, 2019

Dayton HAMFEST



#### May 31, 2019—June 1, 2019

Brat Fry Country Corners Exxon Station,  
Hwy 67 and Hwy 41 in Lomira. 8:00am to  
5:00pm—Contact: Doug Schultz N9EZF



#### June 10, 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112.  
235 N National Ave, Fond du Lac, WI 54935

#### June 7—9, 2019

Walleye Weekend. Contact Joe Scheibinger K8VY

#### June 22 & 23, 2019

ARRL Field Day, 1800 UTC Saturday and  
running through 2059 UTC Sunday



#### July 8, 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC O-102.

#### July 21, 2019

RMC Triathlon



#### Aug. 12, 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112.  
235 N National Ave, Fond du Lac, WI 54935

#### Aug. 25, 2019

Race the Lake

#### August 23-24, 2019

Brat Fry Country Corners Exxon Station,  
Hwy 67 and Hwy 41 in Lomira. 8:00am to  
5:00pm—Contact: Doug Schultz N9EZF



#### Sept. 9, 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112.  
235 N National Ave, Fond du Lac, WI 54935

#### Sept. 20—22, 2019

Fox Cities Marathon



#### Oct. 8, 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112  
235 N National Ave, Fond du Lac, WI 54935

#### Oct. 12, 2019

License Exams, 9:00 am-Noon, Moraine  
Park Technical College in Room O-108.  
235 N National Ave, Fond du Lac, WI 54935  
Contact: Doug Schultz N9EZF



#### Nov., 11 2019

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112.  
235 N National Ave, Fond du Lac, WI 54935

Election of 2019 Officers

#### Dec. TBD, 2019

FdL Parade of Lights, 4:00, Downtown



#### Dec. 8, 2019

FDLARC Holiday Party: Jim and Lind's  
Contact Buddy Larson KC9UVJ



#### Dec. 14, 2019

License Exams, 9:00 am-Noon, Moraine  
Park Technical College in Room O-104  
235 N National Ave, Fond du Lac, WI 54935  
Contact: Doug Schultz N9EZF







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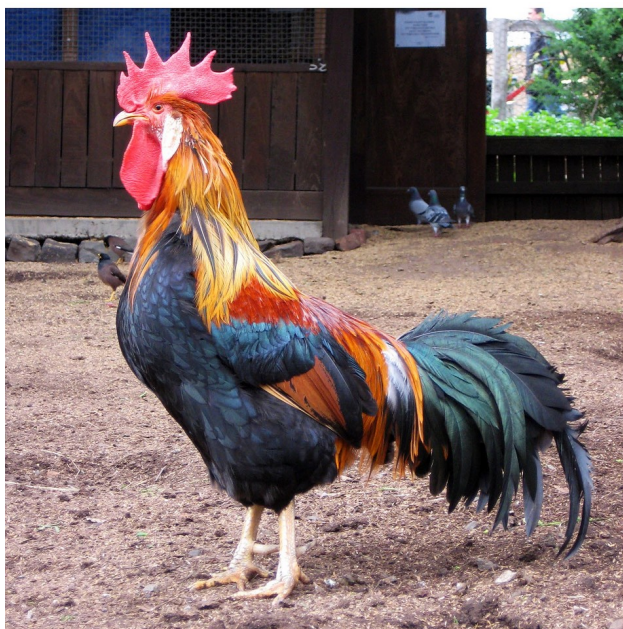
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First	Last	Call Sign
Annika	Kreis	
Barbara	Simon	W9MER
Ben	Haack	KD9LVQ
Blend	Bowen	KC9VXV
Brad	Freund	KC9QYP
Brian	Turkiewicz	KC9LFR
Buddy	Larson	KC9UVJ
Chuck	Mahnke	K9HXI
Cully	Kowal	KS0D
Danny	Vandekolk	KC9IGD
Dave	Witt	WD9W
David	McCumber	N9WQ
David	Zittlow	K9DUI
Dawn	Krause	KD9CAW
Dean	Choate	KC9TGM
Debra	Florian	
Dennis	Paulin	KB9OFM
Derek	Giese	KD9IAN
Dick	Finn	KC9ZVW
Don	Chapman	KC9KZQ
Donald	Bakke	KD0HCW
Donna	Blend	KC9TFN
Dot	Olig	K9FDL
Doug	Murray	KC9ZVT
Doug	Wagner	KC0RNS
Doug	Schultz	N9EZF
Ed	Beltz	N9PJQ
Ed	Sipple	W9VYO
Ed	Steinfeld	KB1ZJK
Fernando	Salazar	KC9ZVX
Gene	Olig	KD9ZP
Gene	Peterson	KD9IAG
Gerry	Radtke	WA9GON
Gregory	Schmude	KD9EHB
Isaac	Lundberg	KD9FPG
Jack	Heil	KG9IN
James	Scovronski	N9WAM
Jeremiah	Alderden	KC9SGL
Jim	Balthazor	K9AIX
Jim	Cole	N9WAP
Joe	Lauber	KC9MDY
Joe	Scheibinger	K9VY
Joyce	Keyes	KC9KIJ
Justin	Buell	KB9YET
Kirk	Everson	KC9FZE
Kyle	Ruesch	AB9AX
Larry	Lamont	KB9POP
Larry	Mielke	KC9RUE
Laura	Yates	
Laurie	Winchell-Beltz	KC9YQS
Lloyd	Vandervort	N9RPU
Lorelei	Kreis	
Louis	Simon	KB9VQM
Marjean	Buck	KC9LFI
Marjorie	Heil	KC9BEN
Mark	Forss	WD9CYM
Mathew	Yates	KD9CSD
Matt	Nett	KD9BBN
Matthew	Zimmerman *	KD9KTY
Michelle	Lawrence	N9RQL
Mike	Keyes	KE7ES
Mike	Lawrence	N9UA
Nancy	Myers	K9ANA
Neal	Buck	KC9LFN
Paul	Bleuel	KC9NAA

## CLUB ROOSTER



Paul	Tvrdy	N9KLK
Peter	Fox	KB9WZD
Randy	Nelson	KC9MYG
Ray	Grenier	K9KHW
Reinholt	Aschmotat	N8VDH
Richard	Jarzynka	KD9EMX
Rick	Robinson	NI9Z
Ron	Keller	KC9YVL
Scott	Kreis	
Stan	Cram	AI0M
Steve	Smith	W9GPI
Ted	Gustavus	KD9IAH
Ted	Neuburg	W9LUQ
Ted	Willett	W9NHE
Timothy	Braun	W9AAV
Todd	Beay	AC9EX
Tom	Karrmann	KC9VZY
Tom	Murray	N0HOR
Tom	Powell	KC9VXR
Tony	Pass	KC9QYR
Walter	Rueger	KC9WQ
Walter	Drees	KD9JAD

Paul	Tvrdy	N9KLK
Ed	Beltz	N9PJQ
Lloyd	Vandervort	N9RPU
Michelle	Lawrence	N9RQL
Mike	Lawrence	N9UA
James	Scovronski	N9WAM
Jim	Cole	N9WAP
David	McCumber	N9WQ
Rick	Robinson	NI9Z
Timothy	Braun	W9AAV
Steve	Smith	W9GPI
Ted	Neuburg	W9LUQ
Barbara	Simon	W9MER
Ted	Willett	W9NHE
Ed	Sipple	W9VYO
Gerry	Radtke	WA9GON
Mark	Forss	WD9CYM
Dave	Witt	WD9W
Annika	Kreis	
Debra	Florian	
Laura	Yates	
Lorelei	Kreis	
Scott	Kreis	

First	Last	Call Sign
Kyle	Ruesch	AB9AX
Todd	Beay	AC9EX
Stan	Cram	AI0M
Jim	Balthazor	K9AIX
Nancy	Myers	K9ANA
David	Zittlow	K9DUI
Dot	Olig	K9FDL
Chuck	Mahnke	K9HXI
Ray	Grenier	K9KHW
Joe	Scheibinger	K9VY
Ed	Steinfeld	KB1ZJK
Dennis	Paulin	KB9OFM
Larry	Lamont	KB9POP
Louis	Simon	KB9VQM
Peter	Fox	KB9WZD
Justin	Buell	KB9YET
Doug	Wagner	KC0RNS
Marjorie	Heil	KC9BEN
Kirk	Everson	KC9FZE
Danny	Vandekolk	KC9IGD
Joyce	Keyes	KC9KIJ
Don	Chapman	KC9KZQ
Marjean	Buck	KC9LFI
Neal	Buck	KC9LFN
Brian	Turkiewicz	KC9LFR
Joe	Lauber	KC9MDY
Randy	Nelson	KC9MYG
Paul	Bleuel	KC9NAA
Brad	Freund	KC9QYP
Tony	Pass	KC9QYR
Larry	Mielke	KC9RUE
Jeremiah	Alderden	KC9SGL
Donna	Blend	KC9TFN
Dean	Choate	KC9TGM
Buddy	Larson	KC9UVJ
Tom	Powell	KC9VXR
Blend	Bowen	KC9VXV
Tom	Karrmann	KC9VZY
Walter	Rueger	KC9WQ
Laurie	Winchell-Beltz	KC9YQS
Ron	Keller	KC9YVL
Doug	Murray	KC9ZVT
Dick	Finn	KC9ZVW
Fernando	Salazar	KC9ZVX
Donald	Bakke	KD0HCW
Matt	Nett	KD9BBN
Dawn	Krause	KD9CAW
Mathew	Yates	KD9CSD
Gregory	Schmude	KD9EHB
Richard	Jarzynka	KD9EMX
Isaac	Lundberg	KD9FPG
Gene	Peterson	KD9IAG
Ted	Gustavus	KD9IAH
Derek	Giese	KD9IAN
Walter	Drees	KD9JAD
Matthew	Zimmerman *	KD9KTY
Ben	Haack	KD9LVQ
Gene	Olig	KD9ZP
Mike	Keyes	KE7ES
Jack	Heil	KG9IN
Cully	Kowal	KS0D
Tom	Murray	N0HOR
Reinholt	Aschmotat	N8VDH
Doug	Schultz	N9EZF
Paul	Tvrdy	N9KLK

NAME  
SORT

CALL  
SORT