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Club Officers

President:	Dave McCumber N9WQ
Vice-President:	Tom Powell, KC9VXR,
Secretary	Lloyd Vandervort N9RPU
Treasurer	Doug Schultz N9EZF
Sgt-at-Arms:	Dawn Krause KD9CAW
Board Member	Peter Fox KB9WZD

Board Member Buddy Larson KC9UVJ Board Member Larry Mielke KC9RUE

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

Some Reminders



While the Fall seems to be a real slow time for our club, we do have two testing sessions coming up. Firstly, Doug Schultz N9EZF will be running a session on Oct. 13, 2018 from 9:00 am through Noon at Moraine Park Technical College in Room O-104. If you know someone who is thinking about becoming a HAM there is still time to study for the Technician Class license. Time is a bit tight but you could probably get prepped for the General class in that timeframe too.

A better schedule for someone thinking to upgrade to General or Extra Class would be to take the test on Dec. 9, 2018 at the above time and location. This gives you plenty of time to get the study materials, read through them and take the practice exams.

Another upcoming annual event is that our yearly dues are coming up. Single memberships are \$15 or if you have two HAM members a family membership is \$20. Student memberships are \$7.50. You can pay Doug Schultz at the next (or following) monthly meeting or send a check to him at:

Fond du Lac Amateur Radio Club, Inc. PO Box 53 Fond du Lac, WI 54936-0053

Next Meeting

When: October 8, 2018 at 7:00 pmWhere: Moraine Park Technical College, Room A-112Program: Paul Hrivnak N8PH, President & CEO of Palstar



October, 2018 Program Paul Hrivnak N8PH, President & CEO of Palstar Will Speak at the October Meeting

On Monday, October 8th, Paul Hrivnak N8PH, President, CEO, and Chief Engineer of Palstar will be our guest. Palstar is one of the largest manufacturers of Ham radio products with locations in over 11 countries around the world.

Palstar is also one of the largest designers and manufacturers of antenna tuners. And that is the subject of the entertainment for the October meeting. What is a antenna tuner, what do they do and how do they work.

Palstar President and CEO, Paul Hrivnak, started his career as an electrical engineer in the automotive industry with his first job at the Ford Motor Company in Detroit, Michigan. He then moved to cable broadcasting and invented the very first <u>infra-red remote control</u> for use in cable television, which his company sold to Philips. His first amateur radio start-up was Vectronics back in the 1980s. In the 1990s, he became a U.S. citizen and started Palstar Incorporated in Piqua, OH. A lifetime of excellence in engineering is inside every Palstar product and one of the

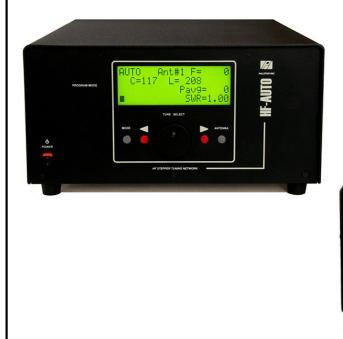


things Paul enjoys most is speaking directly to customers who are considering purchasing a Palstar product or discussing technical issues related to amateur radio.

Paul is also an accomplished classical violinist and once owned a violin made when J.S. Bach was three-years of age. He has played on the world's best violins including Stradivarius and Guarneri violins, and other modern master violin makers.

Over the years, antenna tuners have been called many names. Antenna matchbox, transmatch, antenna tuning unit (ATU), antenna coupler, and feedline coupler are all equivalent names for a device connected between a radio and its antenna to improve power transfer between them by matching the impedance of the radio to the combined impedance of the antenna and feedline.

This will be our very first introduction to antenna tuners. Please put this important meeting on your calendar and please bring a friend to the meeting.







Vintage Amateur Radio de Bill Shadid, W9MXQ

On the heels of last month's presentation about the Hallicrafters SX-117 Receiver and HT-44 Transmitter (and the SR-150 Transceiver before that) comes a review of the HT-45 Linear Amplifier and the Radio Industries Loudenboomer model. Customers buying the SX-117/HT-44 Twins or the SR-150 Transceiver would find the



HT-45 to be a perfect match. This amplifier became a direct competitor to the Collins 30L-1 Linear Amplifier but was potentially a good deal more powerful – at least in the power supply and tube plate dissipation. Below you can see the Hallicrafters HT-45 Linear Amplifier that is in operation at W9MXQ . . .



The Hallicrafters HT-45 Linear Amplifier was capable of operating on most of the HF spectrum from 3.5 to 30 MHz, as were its mates, the SX-117/HT-44 and the SR-150. There was some efficiency drop-off outside the traditional 80 – 10 Meter bands of the time. This amplifier was developed by a Hallicrafters subsidiary operation, Radio Industries, Inc., of Kansas City, Kansas. That amplifier was known as the Loudenboomer. That name was kept with the release of the HT-45. Note the word "Loudenboomer" both on the front of the HT-45, above, and on the front of the Radio Industries version, below:





Vintage Amateur Radio de Bill Shadid, W9MXQ

The Radio Industries Loudenboomer and the Hallicrafters HT-45 share all physical and electrical specifications. Despite the color differences in the included photographs, the two amplifiers might well have shared the same front panel silk screen-



ing. The black insert panel and trim at the top of the HT-45 Front Panel are separate pieces. I have not removed them from my HT-45 but I suspect I would see the Radio Industries panel with the Radio Industries and Loudenboomer name blanked. Further indication of using the same silk screen is noticed when looking at the word "LOADING" at the right side of the amplifier. You will see that the trim piece there nearly covers the "L" in that word. If a separate design screen had been used, this could have been adjusted. That is just one of several trivia items in these products.

The HT-45 used a newly designed triode from Eimac – the 3-400z. This is the predecessor tube to the long popular 3-500z that most of us know. 3-400z tubes today are nearly unobtainable. Some of these amplifiers (both brands) can be found today with an Amperex 8163 triode. The Amperex 8163 (also now nearly unobtainable) was a competing tube to the Eimac 3-400z but was slightly taller and was a very tight fit in the cabinet of these amplifiers. To my knowledge, neither Radio Industries nor Hallicrafters branded amplifiers ever shipped with Amperex tubes from the factory.

For a review, look at comparable specifications for the HT-45 (and Loudenboomer) and its competitive target, the Collins 30L-1:

	Amplifier		
Specification	Collins 30L-1	Hallicrafters HT-45	
Band Coverage	80-10 Meters	80-10 Meters	
Power Amplifier Tube(s)	Four 811A Triodes	One 3-400z Triode	
Total Dissipation	260 watts	400 Watts	
Circuit	Zero Bias Grounded-Grid	Zero Bias Grounded-Grid	
Input Circuit	Tuned – 50 Ohm Impedance	Tuned – 50 Ohm Impedance	
Cooling	Simple fan across the Tubes	Pressurized Cooling System	
Input Power	1,000 Watts SSB/CW	1,000 Watts SSB/CW	
Drive Power for Full Output	100 Watts	50 Watts	
Power Output	500 – 600 Watts	500 – 600 Watts	
Plate Voltage	1,800 Volts	3,000 Volts	
Total Weight	38 Pounds	Amplifier – 28 Pounds	

(Collins 30L-1, Radio Industries Loudenboomer, and Hallicrafters HT-45 Operating Manuals)



Vintage Amateur Radio de Bill Shadid, W9MXQ

This comparison covers just these popular "table top" amplifiers. (The Hallicrafters P-45 Power Supply for the HT-45 was floor mounted – so maybe "table top" is a bit of a stretch!) The total weight of the HT-45 (at 103 pounds with its power supply)



was far more than the 30L-1. That was related to the extremely underutilized P-45 Power Supply in the Hallicrafters system. I am sure that the P-45 Power Supply could have handled much more power. However, the single Eimac 3-400z tube perhaps could not. One wonders if Hallicrafters had plans for a two-tube version of the HT-45. Remember, however, that at that time there was disagreement on the point of 2,000 watts PEP input for SSB. Hallicrafters in those years did not agree with that specification and had no amplifiers rated beyond 1,000 watts. Indeed, even Collins rated the bigger 30S-1 Linear Amplifier (floor mounted amplifier and power supply weighing 170 pounds) at 1,000 watts input. Same as the 30L-1. The 30S-1 could produce far more than 1,000 watts input power.

The HT-45 has a rather unique tuned input. And, in fact, both the Collins 30L-1 and the Hallicrafters ers HT-45 worked with exciters (32S-1 from Collins and HT-44 from Hallicrafters, respectively) that required a load impedance very close to 50 Ohms. Collins did this with tunable Pi-Network input circuits – one for each of its five bands, 80 – 10 Meters. The Hallicrafters input was a "wide-band ferramic transformer" (to quote their actual terminology), "which is broad-band tuned and essentially flat from 3.5 to 30 MHz." This was all well and good but the HT-45 was super critical to drive level and anything more than 50 watts presented to the input of the amplifier would cause great problems and terrible signal reports caused by overdrive. To resolve this, the Operating Manual for the HT-45 includes design and building instructions for a 3-dB RF Pad that tames the drive power and makes the input circuit of the HT-45 operate as smooth as silk.

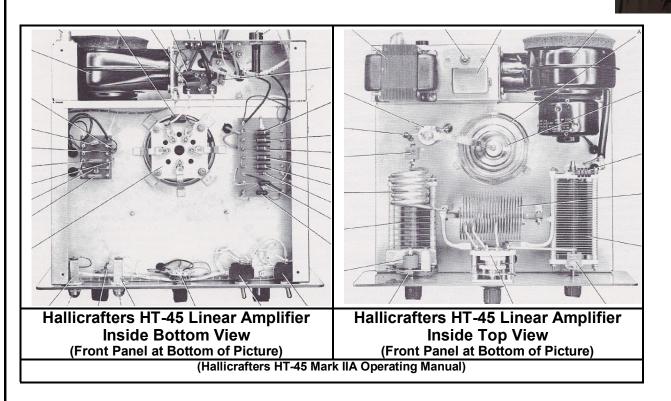
I have owned both the Radio Industries Loudenboomer and now the Hallicrafters HT-45 amplifiers. My original Loudenboomer and its matching 3-dB pad lives on with my fellow collector, Bob, W9DYQ. My current HT-45 has its own 3-dB pad, also based on the HT-45 Operating Manual. The pad uses a total of 38, 2-watt carbon composition resistors. As you would expect, the pad dissipates about 50 watts, peak.

Unlike the Collins 30L-1, and many other amplifiers of the time, the Hallicrafters HT-45 does not have in/out RF switching. When connected to its exciter (such as the Hallicrafters HT-44 Transmitter) it runs 1,000 watts input – period. A relay switching system needs to be designed to handle proper switching – keeping the 3-dB pad inside the amplifier part of the circuit (to prevent a 3-dB loss to the receiver). There is no hint of this in Hallicrafters' documentation. If you find yourself in need of help making either the 3-dB pad or the relay switching system, you may always contact the author of this article for suggestions and some direction. I built my own switching relay from scratch. Such relays were readily available back in the 1960's from P&H Electronics, Dow Key, and others. But, those are long gone, today.



Vintage Amateur Radio de Bill Shadid, W9MXQ

Here is a peek inside the workings of the HT-45 Linear Amplifier . . .



In the bottom view you can see that the grid connections on the 3-400z socket are directly grounded to the chassis. The Mark II Model of the Radio Industries and Hallicrafters amplifiers had the grid pins going to ground through 0.005 uF mica capacitors. In the same view you can see, in the upper left-hand corner, the blower connected to the chamber housing the AC and Control lines from the P-45 Power Supply – which is open to the main chamber where the tube socket is mounted. All air must flow out of the blower, through the AC/Control input area, into the main socket area, and out via the chimney surrounding the 3-400z final amplifier tube.

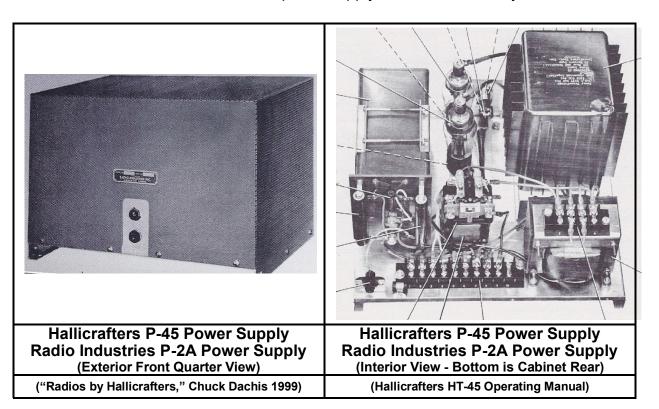
Turning the amplifier over shows the 3-400z tube surrounded by its chimney (open at the top) forcing air past the tube socket pins at the bottom, around the tube envelope, and then exiting around the plate cap. In this Top View you can see the TUNING (left) and LOADING (right) capacitors and the Band Switch connected to the tank coils. You will also see the filament transformer (top left in the picture) and the Blower Assembly. Between the filament transformer and the blower, you can see the housing for the "wide-band ferramic transformer."



Vintage Amateur Radio de Bill Shadid, W9MXQ

Now let's look at the 75-pound P-45 High Voltage Power Supply. (The Radio Industries P-2A Power Supply is the same.) This is a true monster. It was before the days of the high silicon steel power transformer laminations. Even so, with modern iron in the transformer and choke, this power supply would still be heavy.





Some of these power supplies were delivered with the supply mounted on a piece of half-inch plywood attached to the bottom of the cabinet. My P-45 is mounted that way.

The front view shows the cover in place with a high voltage indicator lamp on top, on the small panel, with the primary fuse below it. The other picture – reversed front to back from the outer view, shows the Plate Transformer at the upper right, the Plate Choke at the lower right, with the 110/220 VAC jumper strip on top of that choke, the AC Power-On Relay in the middle just below center, and the two 866A Mercury Vapor Rectifier tubes at top center that are in a full-wave, center -tapped circuit. At the upper left is an 8 uF, 3,000-volt Oil Filled Capacitor. There is a Millen high voltage connector at the lower left corner of the chassis plus a 10-pin terminal strip for interconnection with the amplifier.

The Hallicrafters P-45 and the Radio Industries P-2A Power Supplies are interchangeable and, like the two amplifiers, were built by the Radio Industries Subsidiary.



Vintage Amateur Radio de Bill Shadid, W9MXQ

The HT-45 is very clean, simple, and effective design. It gets the same results (and maybe a bit more) than its target competition, the Collins 30L-1. One mystery (there are always mysteries in these old radios!) is why Hallicrafters selected vacu-



um tube rectifiers. Maybe Hallicrafters President, Bill Halligan, ex-W9AC, liked that blue flash in sync with SSB modulation and CW keying – just like me! Do you think?

In closing, here are two pictures of the HT-45 Linear Amplifier in operation at W9MXQ. Top is with the SX-117/HT-44 Receiver/Transmitter. Bottom is with the SR-150 Transceiver. The HT-45 is quiet and provide a good added signal punch to the exciter. The HT-45 also adapts well with other brands of the 1960's as well as radios of today.

Left to Right: HT-45, HT-44, PS-1



50-120, SX-117 (with D-104 Mic, HA-8 Spatter Guard, HA-1 Keyer, HA-10 Keyer, VibroKeyer)

Left to Right: HT-45, SR-150, PS-150-120, HA-1 (with D-104 Mic, HA-8 Splatter Guard, VibroKeyer)

Until next time – 73, and keep those old radios running on the bands!!

W9MXQ





VOLUME 19 ISSUE 10 www.fdlhams.com October, 2018

FOND DU LAC AMATEUR RADIO CLUB

DL 73

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

MEETING MINUTES

FOND DU LAC AMATEUR RADIO CLUB Minutes of FDLARC Monthly Meeting Monday, September 10, 2018

Meeting Minutes

Call to Order

The meeting was called to order at 7:04 pm. With Tom Powell KC9VXR (Vice President) presiding.

Introductions

All attendees introduced themselves.

Joe Scheibinger K9VY Had a message about the application for our 501-c3 . He has a copy of the application for review. See him if there are any errors .

Program: SATERN

SCOTT RUESCH W9JU Explains what SATERN stands for Salvation Army Team Emergency Radio Network. This is the radio communications arm of the Salvation Army. They have 25 members in Wisconsin and upper Michigan and are all volunteers.

When the Salvation Army is activated during a fire tornado or disaster and they are called out. They use uhf/vhf repeaters or simplex and hf as needed. The site is <u>www.Satern.org</u>.

The Salvation Army began offering assistance to disaster survivors after a major hurricane hit Galveston, TX in September 1900, destroying the coastal city and killing thousands of people. At the request of The Salvation Army's National Commander, Frederick Booth-Tucker, officers (the clergy of The Salvation Army) from across the country moved into the Galveston area to help feed and shelter the thousands of survivors, while also providing much needed emotional and spiritual support.

Since then, The Salvation Army has responded to numerous natural disasters, transportation accidents, civil unrest situations and terrorist attacks. By providing beverages, meals, and emotional and spiritual care to first responders and survivors, The Salvation Army strives to bring hope and healing to people who find themselves in the midst of extremely difficult situations.

SATERN is an all-volunteer organization made up of currently licensed amateur radio operators. They volunteer their time and efforts toward aiding The Salvation Army Emergency Disaster Services ministry. Many are also volunteers in such all-volunteer organizations as SKYWARN, ARES, and others. Some have completed the FEMA online training, or EDS Incident Command training, SKYWARN training, or ARES Emergency Communications training.

SATERN has local organizations in all 50 states and Canada, as well as many other parts of the world. The Salvation Army Team Emergency Radio Network has demonstrated its effectiveness by providing essential radio communication services in countless disaster situations,

The **SATERN International Digital Net** makes use of the FLDIGI NBEMS software suite from W1HKJ, Dave Freese. NBEMS is an acronym for Narrow Band Emergency Message System. It consists of a suite of applications that work together to provide considerable capability to the amateur operator.

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n Sunday Evenings For Our Weekly Net 1020 hrs 145 420 Mile Tone 07 4

FOND DU LAC AMATEUR RADIO CLUB

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

MEETING MINUTES

FOND DU LAC AMATEUR RADIO CLUB Minutes of FDLARC Monthly Meeting Monday, September 10, 2018

Approval of Meeting Minutes

A motion to approve the Minutes was made by Don KC9KZQ and seconded by Joe Lauber. KC9MDY . The motion carried unanimously via a voice.

Treasurer's report

PO QNO

ATEUR RAD

The Treasurers Report was presented by Doug Schultz N9EZF.

A motion to approve the Treasurers Report was made by Buddy KC9UVJ and seconded by Justin Buell KB9YET. The motion carried unanimously via a voice vote.

Old Business

Buddy Larson KC9UVJ : The ARC will be holding the run-walk-roll at Lakeside Park and he needs some volunteers to provide communications for a couple of hours 10 -12 am. Contact Buddy KC9UVJ at kc9uvj@gmail.com .

Tom Powell KC9VXR questioned if the truck committee had any suggestions on a replacement of the truck. Joe Scheibinger K9VY said that they are waiting on the completion of the 501-c3.

New Business

Doug Schultz N9EZF reported that the next testing session will be on Oct 13, 2018 at MPTC, Room O104.

Doug Schultz N9EZF The club has received a letter concerning a cartoon that we published in our July newsletter, this was copyrighted and was published without permission. It has since been removed and Doug Schultz N9EZF will be contacting them.

The replacement Yaesu repeater has arrived and may be installed by the time the newsletter is published. So far it seems to be testing out ok .

Peter Fox KB9WZD gave thanks to all the volunteers at Race The Lak, although there was an accident with several injuries.

Adjournment

A motion was made to adjourn by Buddy Larson KC9UVJ . This was seconded by Jim Balthazor K9AIX The motion carried unanimously via a voice vote. 7:55 pm

The raffle # 554977 was won by Joe Scheibinger K9VY

indoltri dind	0.00
Emerg. Services Fund	1,479.98
General Use Fund Savings Account	5,169.29 25.00
Petty Cash Fund	<u> 19.12</u>
Total	6,689.39
Repeater Fund	229.92

Truck Fund



0.00

Meeting

Minutes







You Tube

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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://yo utu.be/UK1A47pNKyo
- FARC Bob Heil Ham Radio Presentation https://youtu.be/t3Ueh9IN5_U
- FARC WWV Presentation <u>https://youtu.be/w3-DP9DEv_U</u>
- FARC Pacific Antenna Talks Kit Building <u>https://youtu.be/SBreL2YIsn0</u>
- FARC Scanner Master Presentation <u>https://youtu.be/dlSIAufGkv8</u>
- FARC WBAY Field Trip TV Nov 17 2015 https://youtu.be/sfQvJ1fV6eo
- FARC WBAY transmitter tour <u>https://youtu.be/NnZ210_6HvA</u>
- FARC NooElec https://youtu.be/s_pxYkH4xds
- FARC Elecraft Radio <u>https://youtu.be/3Ou1Qpx9Vg8</u>
- 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
- FARC The DZKit Ham Radio Kits 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/3I352v4gYdw

Newsletter Back Issues

When I took over as the newsletter editor I simply continued the volume numbering that existed then. Unfortuanately, I don't have copiues of those old newsletters. I would appreciate it if you have any newsletters earlier than October, 2014 you would send them to me. Electrocin copies are ideall 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



NOTICES/ANNOUNCEMENTS

HAM Testing Session

The Volunteer Examiners of the Fond du Lac club will be holding Amateur License exams on Saturday, October 13, 2018 from 9:00 AM until Noon in Room O-104 at Moraine Park Technical College in Fond du Lac. If you have questions or want to reserve a spot please contact Doug Schultz at 920-922-3088 or via email at schultz74@charter.net.



There's still plenty of time to crack the books and prepare to upgrade your ticket.



Club Nets

Sunday Evenings - Open to all 6:15 pm Ten Meter SSB Net-28.450 MHz 7:30 pm Two Meter FM Net-145.430 MHz PL 97.4



FDL County ARES Net Sunday Evenings For ARES Team Members. Now combined with the Club Net at 7:30 pm. ARES Coordinator: Todd Beay (AC9EX)





Free, For Sale or Wanted

Upcoming HAMFESTS and Conventions From ARRL

10/13/2018 | Wisconsin ARES/RACES Conference

Location: Wisconsin Rapids, WI Type: ARRL Convention Sponsor: WeComm, Ltd. Website: http://wi-aresraces.org Learn More

11/03/2018 | MRC91 Milwaukee Repeater Club

Location: Milwaukee, WI Type: ARRL Hamfest Sponsor: Milwaukee Repeater Club Website: http://mrc91.org Learn More

11/04/2018 | FCARC Swapfest

Location: Appleton, WI Type: ARRL Hamfest Sponsor: Fox Cities Amateur Radio Club Website: http://www.fcarc.club/hamfest.php Learn More

01/05/2019 | 47th Annual Midwinter Swapfest

Location: Waukesha, WI Type: ARRL Hamfest Sponsor: West Allis Radio Amateur Club Website: http://warac.org Learn More











FOND DU LAC AMATEUR RADIO CLUB DL 73:



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FDLARC Monthly Meeting, 7:00 pm, MPTC

Brat Fry at the Country Corners Exxon Station. Hwy 67 and Hwy 41 in Lomira.

8:00am TO 5:00pm-Contact: Doug Schultz

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

2018 CALENDAR

Jan. 8. 2018

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

Feb. 12. 2018

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112. Feb. 10. 2018

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



Mar. 11 & 12, 2018 Wisconsin QSO Party

Mar. 12, 2018

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112. Annual Membership Drive-Contact Joe Scheibinger

Apr. 9. 2018 FDLARC Monthly Meeting, 7:00 pm, MPTC A-112. Apr. 14, 2018

License Exams, 9:00 am-Noon, Moraine Park Technical College in Room O-108 Contact: Doug Schultz N9EZF



May 14, 2018

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

May 18—20, 2018 Davton HAMFEST



June 1-2, 2018

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

June 11. 2018 FDLARC Monthly Meeting, 7:00 pm, MPTC A-112.



June 8—10, 2018 Walleye Weekend. Contact Joe Scheibinger K8VY

June 23 & 24, 2018 ARRL Field Day, 1800 UTC Saturday and

running through 2059 UTC Sunday

July 9, 2018

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

July 22, 2018 RMC Triathlon





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

Christmas Party: Lind's Contact







Sept. 10, 2018

Aug. 13, 2018

Aug, 26 2018

August 24-25, 2018

Race the Lake

A-112.

N9EZF

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112. Sept. 21-23, 2018

Fox Cities Marathon

Oct. 8, 2018

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112 Oct. 13. 2018

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

Nov,. 12 2018

FDLARC Monthly Meeting, 7:00 pm, MPTC A-112. Election of 2018 Officers

FdL Parade of Lights, 4:00, Downtown

Dec. 10, 2017







Jim and Buddy Larson KC9UVJ



FDL 73 VOLUME 19 ISSUE 10 www.fdlhams.com October, 2018

FDL ARC

Join Us On Sunday Evenings For Our Weekly Net - 1930 hrs. 145.430 MHz -

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First	Last	Call Sign	Dues	
Annika	Kreis			
Barbara	Simon	W9MER		
Blend	Bowen	KC9VXV		
Brad Brian	Freund Turkiewicz	KC9QYP KC9LFR		
Brian				
Buddy	Larson	KC9UVJ		
Chuck	Mahnke	K9HXI		
Cully	Kowal	KS0D		
Danny	Vandekolk	KC9IGD WD9W		•
Dave	Witt	N9WQ		Na
David David	McCumber Zittlow	K9DUI		INA
David				
Dawn Daan	Krause	KD9CAW		
Dean Debro	Choate	KC9TGM		
Debra Depraio	Florian	KROOFM		Per un sector
Dennis	Paulin	KB90FM		
Derek	Giese	KD9IAN		
Dick	Finn	KC9ZVW		
Don	Chapman	KC9KZQ		
Donna	Blend	KC9TFN		
Dot	Olig *	K9FDL		
Doug	Murray	KC9ZVT		1
Doug	Wagner	KCORNS		STATE OF
Doug	Schultz	N9EZF		
Ed	Beltz	N9PJQ		P. A.
Ed	Sipple	W9VYO		
Ed	Steinfield	KB1ZJK		and the second
Edward	Frac	AA9WW		
Fernando	Salazar	KC9ZVX		
Gene	Olig *	KD9ZP		
Gene	Peterson	KD9IAG		10
Gerry	Radtke	WA9GON		100
Gregory	Schmude	KD9EHB		
Isaac	Lundberg	KD9FPG		
Jack	Heil	KG9IN		and the second
James	Scovronski	N9WAM		and an
Jim	Balthazor	K9AIX		\mathcal{L}
Jim	Cole	N9WAP		
Joe	Lauber	KC9MDY		Paul
Joe	Scheibinger	K9VY		Paul
Joyce	Keyes	KC9KIJ		Peter
Justin	Buell	KB9YET		Randy
Kirk	Everson	KC9FZE		Ray
Kyle	Ruesch	AB9AX		Reinholt
Larry	Lamont	KB9POP		Richard
Larry	Mielke	KC9RUE		Rick
Laura	Yates			Ron
Laurie	Winchell	KC9YQS		Scott Stan
Lloyd	Vandervoort	N9RPU		
Lorelei	Kreis			Steve
Louis	Simon	KB9VQM		Ted
Marjean	Buck	KC9LFI		Ted
Marjorie	Heil	KC9BEN		Ted
Mark	Forss	WD9CYM		Timothy
Mathew	Yates	KD9CSD		Todd
Matt	Nett	KD9BBN		Tom
Matthew	Zimmerman	KD9KTY		Tom
Michelle	Lawrence	N9RQL		Tom
Mike	Keyes	KE7ES		Tony
Miko	IL owronoc	NOLIA		

PO GNOS

PANATEUR RADIO

ROOSTER

Bleuel

Tvrdy

Nelson

Grenier

Aschmotat

Jarzynka

Robinson

Keller

Kreis

Cram

Smith

Gustavus

Neuburg

Willett

Braun

Beay

Murray

Powell

Rueger

Pass

Drees

Walter

Walter

Karrmann

Fox

KC9NAA

N9KLK

KB9WZD

KC9MYG

K9KHW

N8VDH

NI9Z

KC9YVL

AI0M

W9GPI

KD9IAH

W9LUQ

W9NHE

W9AAV

AC9EX

KC9VZY

N0HOR

KC9VXR

KC9QYR

KC9WQ

KD9JAD

KD9EMX

me Sort **Call Sort**

Doug

Paul

Lloyd

Mike

Jim

David

Rick

Timothy

Barbara

Steve

Ted

Ted

Gerry

Mark

Dave

Annika

Debra

_aura

orelei

Scott

Ed

James

Michelle

Fd

Schultz

Vandervoort

Lawrence

awrence

Scovronski

McCumber

Robinson

Braun

Smith

Simon

Willett

Sipple

Radtke

Forss

Witt

Kreis

Florian

Yates

Kreis

Kreis

Neuburg

Doug

Reinholt

Aschmotat

Schultz

Γvrdy

Beltz

Cole

MHz — Tone 97.4 Hz			
	First	Last	Call Sign
	Edward	Frac	AA9WW
	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
4	Joe	Scheibinger	K9VY
rt	Ed	Steinfield	KB1ZJK
-	Dennis	Paulin	KB90FM
1990 - Torong	Larry	Lamont	KB9POP
	Louis	Simon	KB9VQM
1. 2	Peter	Fox	KB9WZD
	Justin	Buell	KB9YET
Ale a	Doug	Wagner	KCORNS
1.44	Marjorie	Heil	KC9BEN
	Kirk	Everson	KC9FZE
1 1 1	Danny	Vandekolk	KC9IGD
19441	Joyce	Keyes	KC9KIJ
	Don	Chapman	KC9KZQ
Charles and	Marjean	Buck	KC9LFI
17 24	Neal	Buck	KC9LFN
	Brian	Turkiewicz	KC9LFR
States and			
The Contraction of the	Joe Bondu	Lauber	KC9MDY KC9MYG
1.1.1.1.1.1	Randy	Nelson	
Sec. 1	Paul	Bleuel	KC9NAA
1-	Brad	Freund	KC9QYP
E.	Tony	Pass	KC9QYR
	Larry	Mielke	KC9RUE
4	Donna	Blend	KC9TFN
1255	Dean	Choate	KC9TGM
	Buddy	Larson	KC9UVJ
Conce :	Tom	Powell	KC9VXR
1. 1. 1.	Blend	Bowen	KC9VXV
20	Tom	Karrmann	KC9VZY
NOTE	Walter	Rueger	KC9WQ
N9EZF	Laurie	Winchell	KC9YQS
N9KLK	Ron	Keller	KC9YVL
N9PJQ	Doug	Murray	KC9ZVT
N9RPU	Dick	Finn	KC9ZVW
N9RQL	Fernando	Salazar	KC9ZVX
N9UA	Matt	Nett	KD9BBN
N9WAM	Dawn	Krause	KD9CAW
N9WAP	Mathew	Yates	KD9CSD
N9WQ	Gregory	Schmude	KD9EHB
NI9Z	Richard	Jarzynka	KD9EMX
W9AAV	Isaac	Lundberg	KD9FPG
W9GPI	Gene	Peterson	KD9IAG
W9LUQ	Ted	Gustavus	KD9IAH
W9MER	Derek	Giese	KD9IAN
W9NHE	Walter	Drees	KD9JAD
W9VYO			
WA9GON	Matthew	Zimmerman	KD9KTY
WD9CYM	Gene	Olig *	KD9ZP
WD9W	Mike	Keyes	KE7ES
-	Jack	Heil	KG9IN
	Cully	Kowal	KS0D
	Tom	Murray	NOHOR
	Reinholt	Aschmotat	N8\/DH

Mike

Nancy

Neal

Myers

Buck

awrence

N9UA

K9ANA

KC9LFN

N8VDH

N9EZF