



FOND DU LAC AMATEUR RADIO CLUB

— FDL 73 —

VOLUME 20 ISSUE 7

www.fdlhams.com July, 2019



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

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

Field Day 2019 Report By Tom Powell KC9VXR



Field Day 2019 can be considered a success in many ways. We had very good participation from our members in set-up, operation and take-down. We were visited by Sheriff Waldschmidt and Director of Emergency Management Bobbi Hicken, both of whom were impressed and appreciative of our availability for emergency communication when needed.

A number of our members accepted responsibility and provided leadership in areas where many details needed to be addressed. Because of this the event ran smoothly and efficiently. The weather was near perfect.

We operated 2 stations continuously (or nearly so) for 24 hours. Many of us learned new information and improved our skills in amateur radio operations. We did well in the contest with 418 CW contacts, 171 phone contacts, 62 digital contacts and extra points in several areas. Congratulations to all who contributed to the success of Field Day 2019!!!

Tom Powell KC9VXR



Next Meeting

When: July 8, 2019 at 7:00 pm

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

Program: The "Rain Report" Producer Hap Holly KC9RP our Guest for July



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The "Rain Report" Producer Hap Holly KC9RP our Guest for July

On Monday, July 8th, members of the Fond du Lac Amateur Radio Club will have the honor to meet Hap Holly KC9RP, a great man and a true legend in Ham Radio.

(ARRL) Hap Holly, KC9RP, who's been producing The RAIN Report Amateur Radio newscast every week for 30 years, has announced that he's retiring and closing down The RAIN Report (Radio Amateur Information Network). "The archives will remain online for those who want to download and/or broadcast them," Holly told ARRL. Holly, who just turned 68, was named Hamvention's 2002 Amateur of the Year, which he called "a very special honor." He produced The RAIN Report, which typically runs from 10 to 15 minutes, from his home studio/ham shack in suburban Chicago. In addition to being available via the internet, The RAIN Report is transmitted over a wide network of Amateur Radio repeaters.



From his home studio/ham shack in suburban Chicago, Hap Holly, KC9RP, produces this 10 to 15- minute weekly amateur radio program service, featuring timely interviews, occasional thought-provoking commentaries from other hams, excerpts from Hamvention Forums and other items of general interest to the ham radio community at large. Ham radio is traditionally an aural – as opposed to a visual – medium; we meet and recognize fellow hams primarily by voice, seldom seeing them in person. RAIN programming is also an aural medium, listened to by thousands of Internet users and hundreds of repeaters across the country at <http://www.therainreport.com>. Vern Jackson, WA0RCR, has carried the RAIN Report since its inception in the late 1980's on his 160 meter Gateway Radio Newsletter AM bulletin service from Wentzville, Missouri, on 1.860 Mhz, Saturday afternoon/evenings. Those aforementioned repeater groups and others replay the weekly RAIN program over their local repeater systems on their regular "net night" gatherings, permitting thousands of hams to hear Hap's offerings for that particular week. It's all done with volunteer help and – in the best of amateur traditions – without profit to anyone involved."

Let's Meet Hap Holley KC9RP

Portions written by Dave Miller, NZ9E

Hap Holly, KC9RP, founder, guiding light and moderator of the weekly amateur radio audio feature magazine known as the RAIN(Radio Amateur Information Network) Report will be our July guest.

Hap Holly makes it happen; he's an uncommonly intelligent and outgoing individual. Hap is also very aurally oriented and insists on quality in every way in his RAIN programming. He conducts most of the interviews, edits and engineers all of the program material on his talking computer, writes the scripts for others to record for him as MP3 files, and archives/ catalogs the RAIN library. It's all accomplished by touch and by ear...Hap is one of a number of non-sighted radio amateurs within our ranks, but you'd never know it.



For Hap blindness happened literally overnight...when he was only 7. Problems with his vision began when he was 4, but then he awoke one morning totally blind. The condition is untreatable, at least within current medical terms, but to Hap, it hasn't been a handicap. In fact, in talking to him over the years, most of his friends tend to forget his unusual challenges, because he does so much of what we all do, without mention of his visual impairment. Both of Hap's parents were blind, his father's resulting from a football accident in high school and his mother's when she was around the age of 12. His father, nonetheless, was a successful building contractor and architect, formulating the plans he devised within his "mind's eye", then describing the details precisely to his secretary, who constructed balsa wood models. Then only by touch, Hap's dad would go over the "3-dimensional plans", incorporating additions or changes as needed.



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The "Rain Report" Producer Hap Holly KC9RP our Guest for July

Hap's father was also a long time columnist for the Christian Science Monitor and was known world-wide for his "Ask a Builder" column, which he wrote from 1965 until his passing in 1984. He was a touch typist – as is Hap – and was able to generate his column by that method alone (before the days of computers, word processors and voice synthesizers).

In 1988 a 420-page book was written about Hap's mother, depicting her struggle for independence from her New England industrialist father, her marriage to Hap's dad and the eventual challenges that two blind parents encountered raising four sighted children—then Hap too became blind. That book, entitled "What Love Sees" was made into a made-for-TV movie and was first aired on the CBS television network, September 22, 1996. It starred Richard Thomas of the original "Walton's" series and Anna Beth Gish, who played Pat Nixon.

Hap's Ham career began when he earned his Novice ticket in 1965 at the age of 14, receiving the call sign WN6UJH, while living in Escondido. He became a General – dropping the "N" in his call for a "B" – a year later in 1966 and served as a phone-patch station and net control for the Westcars traffic net until 1970. Hap then headed off to Principia College in Elsah, Illinois and from 1970 to graduation in 1974, ran phone patches and kept radio schedules for his fellow students. He graduated with a Bachelor of Arts degree in Sociology, and soon found himself in the Chicago area, where he sought out world-class jazz accordionist Leon Sash to pursue his other love, music. With Hap's patient guidance. Hap's wife, Stephanie – who is sighted – received her ham ticket in 1986 and the call KA9WKD, after realizing how much ham radio, and the good it was able to accomplish, meant to Hap. In 1977, Hap picked up the "9-land" call of WD9GJQ. A year later he and Stephanie moved into their small but comfortable home in Des Plaines, Illinois, where he resumed his phone-patching and DXing activities with his now permanent antenna and station set-up.

In 1981 Hap passed his Advanced class license exam and changed calls once more, this time to his current KC9RP call sign. According to Hap, "My inspiration for producing weekly ham radio programming resulted from my 'need to know'. I faithfully listened to the weekly ham radio newscasts from the Amateur Radio Newsline (formerly WestLink Radio) in the early 1980's on a local repeater. I owe a great deal of gratitude to Newsline's founder and producer, Bill Pasternak, WA6ITF, for his encouragement and direction. RAIN is truly an offspring of Newsline. In recent years Hap has written for Spec-Com Journal, Radio Scan Magazine and occasionally has reported for Newsline but with a human interest focus, as opposed to a news-only approach.

Hap is a common sight at the yearly Dayton Hamvention, taping a number of the forums with the help and cooperation of the Hamvention organizers. These forums are then incorporated throughout the year in Hap's RAIN Reports, making the Hamvention come alive for those of us who may not be able to attend personally.

According to Hap, being named 2002 Hamvention amateur of the Year was a VERY special honor. Hap is active on HF, VHF, and The Internet, using a Pc equipped with the JAWS speech screen reader program. Today he masters all RAIN audio digitally; encodes the weekly programs into downloadable MP3 files using Sound Forge; then uploads those files to an audio server for Internet distribution and now podcasting. Both the website and audio bandwidth are subsidized by supporters of RAIN via PayPal and the U.S. Mail.





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2019 Field Day June 22-23 2019



The annual ARRL Field Day for 2019 June 22-23 2019 is now in the books. While the final ratings are still not available our involvement was a resounding success. We had many people show up on Friday evening to start the setup. Saturday morning a large group presented itself at the University of Wisconsin North Parking Lot to complete the setup with laying cables, erecting yhe antennas and getting everything ready for the 1:00 p, kickoff. Most of the work was completed by noon which allowed an hour to relax and have lunch.

A very big vote of thanks goes to Tom Powell KC9VXR who took over leadership of the event and recruited a great team of section leaders to coordinate all the activities. Everyone did their share and the event went off like clockwork.

A key part of accumulating points involves getting participation from local government people. Thanks to Joe Scheibinger's recruiting efforts we were able to get Bobbi Hicken, the Fond du Lac Director of Emergency Management as well as Sheriff Ryan F Waldschmidt, Fond du Lac County Sheriff



Tom Powell KC9VXR
coordinator.



Bobbi Hicken, the Fond du Lac Director of
Emergency Management



Sheriff Ryan F Wald-
schmidt, Fond du Lac
County Sheriff



A trailored generator and flood light were
supplied by KFIZ—Many thanks.





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2019 Field Day
June 22-23 2019





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June 22-23 2019





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June 22-23 2019**





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**2019 Field Day
June 22-23 2019**





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MAY 31 & JUNE 1, 2019 BRAT FRY By Doug Schultz N9EZF



We had another successful club Brat Fry on Friday, May 31 and Saturday, June 1, 2019 across from the Exxon station in Lomira. We had perfect weather on Friday, May 31 and we had a very busy day at Brat Fry. I would like to thank the following club members for helping on Friday: Joe Lauber KC9MDY, Dick Finn KC9ZVW, Joe Scheibinger K9VY, Rick Robinson NI9Z, Tom Powell KC8VXR, Chuck Mahnke K9HXL, Jack Heil KG9IN, Ron Aschmotat N8VDH and Ron Keller KC9YVL.



It was a good thing we had a record sales day on Friday because the weather was not as cooperative on Saturday. We also had competition on Saturday with another brat Fry at the Lomira fire Dept. I would like to thank the following club members for helping at the Brat Fry on Saturday: Larry Mielke KCD9RUE, Fernando Salazar KC9ZVX, Doug Murray KC9ZVT & his daughter Libby, Marjean Buck KC9LFI, Neal Buck LC9LFN, Peter Fox KB9WZD, Justin Buell KB9YET, Ben Haack KD9LVQ, Gene Peterson KD9IAG and Paul Bleuel KC9NAA.

Our net profit for the Brat Fry was \$956 after all bills were paid. We also kept 10 lbs. of brats and burgers for Field Day activities in Justin Buell's freezer.

A special thanks to Peter Fox, Ben Haack and Gene Peterson for getting the grill cleaned up as well as cleaning the Brat Shack. A special thanks to Larry Mielke for cleaning the roasters, crock pots & utensils for the Brat Fry.

I need also to thank Dick Finn KC9ZVW for picking up and returning the meat trailer to Hoff's. I also need to thank Jack Heil KG9IN for driving the yellow banana both ways. Thanks to everyone who helped at the Brat Fry and made it successful!



ED NOTE: See the June Newsletter for more pictures.





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,¹ 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 Transceiver² 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.

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 transmitters²). Most of the most popular accessories appear in the pictures, below . . .



Vintage Amateur Radio
de Bill Shadid, W9MXQ



		
SB-200 1.2-Kilowatt Linear Amplifier³	SB-220 2-Kilowatt Linear Amplifier³	SB-640 External VFO (Heathkit Catalog)
		
HP-23(x) AC Power Supply (for SB-100 Series Radios)	HP-13(x) DC (Mobile) Power Supply (for SB-100 Series Radios) (HP-13 Assembly Manual)	SB-600 Speaker Console
		
SB-610 Monitor Scope	SB-620 Spectrum Scope	SB-500 Two-Meter Transverter (Heathkit Catalog)
		
SB-630 Station Console	HD-1410 Electronic Keyer	SB-650 Digital Readout (for SB-100 Series Radios) (Heathkit Catalog)
(Pictures, unless otherwise noted, are from W9MXQ Photographs)		



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Vintage Amateur Radio de Bill Shadid, W9MXQ

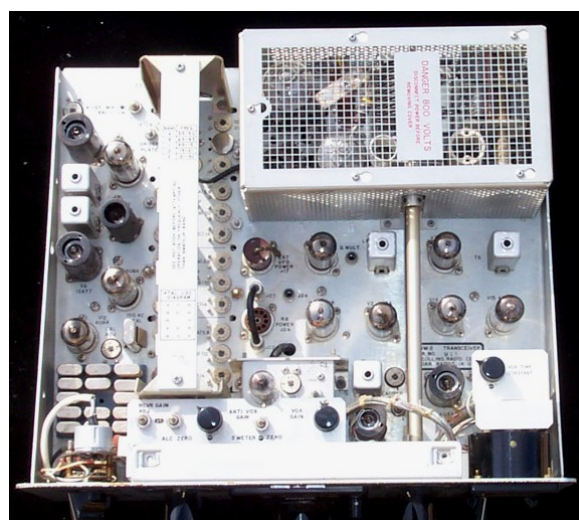


Virtually all the accessories, were compatible with most other brands of radios of the day, except for frequency related items such as the SB-640 External VFO, the SB-620 Spectrum Scope, the SB-500 Two-Meter Transverter, and the SB-650 Digital Readout. But some enterprising hams found ways around even that restriction. The SB-200 and SB-220 Linear Amplifiers were some of Heathkit's most popular products and operate today in large numbers³. 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.



**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,



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Vintage Amateur Radio de Bill Shadid, W9MXQ



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.

SB-102 Transceiver (1970-1975) – this model is the most numerous. The SB-102 improved sensitivity from 1 uV to 0.35 uV 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-102⁵ 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-104³ 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 unit⁴.) 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 Transceivers³ 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.

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



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**Vintage Amateur Radio
de Bill Shadid, W9MXQ**



Credits and Comments:

¹ https://en.wikipedia.org/wiki/James_Burke_%28science_historian%29

² 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.

³ Subject of a future article.

⁴ 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.

⁵ 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, June 10, 2019



Truck Fund	0.00
Emerg. Services Fund	1,484.67
General Use Fund	5,391.36
Savings Account	25.00
Petty Cash Fund	<u>19.12</u>
Total	6,920.15
Repeater Fund	231.44



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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

FARC - WWV Presentation 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

FARC - NooElec 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

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/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



FOND DU LAC AMATEUR RADIO CLUB

— FDL 73 —

VOLUME 20 ISSUE 7

www.fdlhams.com July, 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 (or get) 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. There's still plenty of time to crack the books and prepare to upgrade your ticket.



Generally speaking, I will be publishing the newsletter each month (except December (when we do not have a meeting) on the Monday before our monthly meeting. I start assembling it during the preceding two weeks. Obviously I would like to have the material as early as possible but the deadline will have to be on the Wednesday preceding the publish date.

Following are the pertinent dates I'll update this table and print it in each month's newsletter):

	Publish Date	Deadline Date
Aug, 2019	8/5/19	7/31/19
Sept, 2019	9/2/19	8/28/19
Oct, 2019	10/7/19	10/2/19
Nov., 2019	11/4/19	10/30/19



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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

08/10/2019 | Free Fest

Location: Racine, WI

Type:

Sponsor: Racine Megacycle Club

Website: <http://w9udu.org>

Learn More

08/10/2019 | Riverland Amateur Radio Club Swapfest

Location: Onalaska, WI

Type: ARRL Hamfest

Sponsor: Riverland Amateur Radio Club

Website: <http://rarc.qth.com>

Learn More

08/24/2019 | Circus City Swapfest

Location: Baraboo, WI

Type: ARRL Hamfest

Sponsor: Yellow Thunder Amateur Radio Club

Website: <http://yellowthunder.org>

Learn More

09/07/2019 | Ozaukee Radio Club 14th Annual Regional Fall Swapfest

Location: Cedarburg, WI

Type: ARRL Hamfest

Sponsor: Ozaukee Radio Club

Website: <http://ozaukeeradioclub.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 Linda'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





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