

ARRL Nebraska State Convention

Saturday May 11th, 2024

Talk In 8:00AM to 3:00PM Onsite HT's
KØKKV Sandhill's Global Event Center, Lincoln, NE KØLNE
146.760- VE Testing and Forums 9:00 a.m. until 1:00 p.m. 145.190-

84th & Havelock Ave.- 8:00 a.m. - 3:00p.m. - ARRL Sponsored



Sanctioned Event
ARRL
The national association for
AMATEUR RADIO



PROGRAMS-FORUMS-DEMOS-DISPLAYS
FLEA MARKET- ESTATE SALES -FCC TESTING

Onsite vendors:

D & L Antenna Supply Co. Kansas City, MO



www.lincolnhamfest.org

Doors Open At 8:00 A.M. Come On Time For The Best Deals!

General Admission: 16yrs and up \$8.00 - Below 16 yrs-free - LARC Members \$5.00

Vendor & Flea Market Information

Set-up

May 10th 12:00 p.m. to 5:00 p.m.

May 11th 7:00 a.m

Flea Market Rentals

8 foot table \$10.00 each

Electricity \$25.00/drop or outlet

Payment Options

Online payment is open until May 6th

www.lincolnhamfest.org

Bring Your Online Receipt

Raffle Ticket Prizes

Special Prize Drawings All Day

Grand Prize Drawings At 2:30 p.m.

(One) \$500 Gift Certificate To Associated Radio

(One) \$300 Gift Certificate To Associated Radio

(One) \$200 Gift Certificate To Associated Radio

BAOFENG

(10) UV-5R Dual Band HT's

(1) ANYTONE AT-778UV Dual Band Mobil

Plus Many More Items!

(Must Be Present To Win All Drawings)

Forums:

09:00 AM: George, KCØHYI MotoTrbo DMR

10:00 AM: ARRL Midwest Division Director, Art Zygielbaum, KØAIZ

10:30 AM ARRL NE Section Manager, Matt Anderson, KAØBOJ

11:00 AM RT Systems Software

Contact: Ed Holloway, KØRPT k0rpt@arrl.net, 402-326-1139



LARC Meeting

Wednesday, May 8th - 19:30

LARC Clubhouse | 4420 NW 41st St, Lincoln, NE

Amateur Radio and Earth-Moon-Earth Communications

Doug Buhrman, KØDSP

Back in the 1970s, it was said that Earth-Moon-Earth, EME, was one of the most significant technical challenges for the radio amateur. It still is to a certain extent, but with advances in computers, software, and semiconductors, it is now a reality most amateurs can achieve if they are willing to do the work! There are a few methods to build a station with a modest budget. Doug will present some of the basics and the pitfalls to avoid when assembling an EME station. Who knows, you may soon receive a QSL card with the phrase "Thanks for the EME contact!"

Calendar

May

- 2 Th.. 18:30 VE Exams College View Church 4801 Prescott Ave
- 5 Su.. 06:00 Lincoln Marathon..... Various locations around Lincoln
- 8....We 19:30.. LARC Meeting LARC Clubhouse 4420 NW 41st St**
- 9 Th.. 19:30 SATERN Meeting Salvation Army..... 2625 Potter St
- 11 .Sa .08:00.. ARRL NE State Convention..... Sandhills Global Event Center ... 4100 N 84th St**
- 19.. Su.. 17:00 LARC Board Mtg LARC Clubhouse..... 4420 NW 41st St
- 28 .Tu .23:59.. LOG Deadline Email articles & ads to log@k0kkv.org**

June

- 3 Mo 18:30 LOG Folding LARC Clubhouse..... 4420 NW 41st St
- 6 Th.. 18:30 VE Exams College View Church 4801 Prescott Ave
- 12 .We 19:30.. LARC Meeting LARC Clubhouse 4420 NW 41st St**
- 13.. Th.. 19:30 SATERN Meeting Salvation Army..... 2625 Potter St
- 19.. Su.. 17:00 LARC Board Mtg LARC Clubhouse..... 4420 NW 41st St
- 22-23 Field Day..... LARC Clubhouse 4420 NW 41st St**
- 25 .Tu .23:59.. LOG Deadline Email articles & ads to log@k0kkv.org**



2024 Board of Directors

President	Aaron Rogge.....	NØADR	402/617-0234 ...	n0adr@ajrogge.com
Vice President	Ed Holloway	KØRPT	402/326-1139 ...	k0rpt@arrl.net
Secretary	Kim Cartwright.....	KEØTNR	402/430-1506 ...	kcdragon3@gmail.com
Treasurer	Alex Lewis	W3ALX	402/202-8830 ...	alex.w3alx@gmail.com
Member	Shaun Munson.....	KØSMM	402/853-6523 ...	k0smm@arrl.net
Member	Bryan Leavitt.....	WØBCL	402/310-1686 ...	w0bcl@arrl.net
Member	Roark Pyle	WØLNE	402/318-1452 ...	w0lne@arrl.net
Member	Kenneth Cohn	KCØHN	402/310-8526 ...	kc0hn.ne@gmail.com
Club Station Trustee.....	Greg Brown	KTØK.....	402/937-3540 ...	kt0k@arrl.net

2024 Committees (Committees may be subject to change)

Committee	Liaison..	Chair	Phone	Email
Activities	KØSMM.....	Ken Cohn, KCØHN	402/310-8526 ...	kc0hn.ne@gmail.com
Awards	Ed Holloway, KØRPT	402/326-1139 ...	k0rpt@arrl.net	
Audit	W3ALX.....	Greg Brown, KTØK	402/937-3540 ...	kt0k@arrl.net
Bylaws.....	NØADR.....	Alex Lewis, W3ALX.....	402/202-8830 ...	alex.w3alx@gmail.com
Club Inventory	KØSMM			
Club Station.....	KØRPT.....	Greg Brown, KTØK	402/937-3540 ...	kt0k@arrl.net
Education	NØADR.....	Bryan Leavitt, WØBCL	402/310-1686 ...	w0bcl@arrl.net
Estate Assistance	KØRPT.....			
Field Day	KØRPT.....	Shaun Munson, KØSMM.....	402/853-6523 ...	k0smm@arrl.net
Holiday Party.....	NØADR.....	Ed Holloway, KØRPT	402/326-1139 ...	k0rpt@arrl.net
LOG Editor	WØBCL	Jean Leavitt, KØJSL	402/310-9964 ...	log@k0kkv.org
Mentorship	Greg Brown, KTØK	402/937-3540 ...	kt0k@arrl.net	
Public Relations.....	KØRPT.....	Shaun Munson, KØSMM	402/853-6523 ...	k0smm@arrl.net
Public Service.....	KCØHN	Aaron Rogge, NØADR.....	402/617-0234 ...	n0adr@ajrogge.com
QSL Cards	W3ALX.....	Greg Brown, KTØK	402/937-3540 ...	kt0k@arrl.net
Tower/Antenna Crew....	KØRPT.....	Shaun Munson, KØSMM	402/853-6523 ...	k0smm@arrl.net
Transmitter Hunts	KØSMM			
TVI/RF.....	KØRPT.....	Shaun Munson, KØSMM	402/853-6523 ...	k0smm@arrl.net
Website	W3ALX.....	Aaron Rogge, NØADR.....	402/617-0234 ...	n0adr@ajrogge.com



President's Message
Aaron Rogge, NØADR,
LARC President

Greetings to all my fellow Hams. May is looking to be another busy month. We kick things off with our first public service event of the year: the 47th

annual Lincoln Marathon on Sunday, May 5. It is always an excellent way to start the public service season and give back to this great city. It's a big, city-wide party, and it's a lot of fun for everyone involved.

Right on the heels of the marathon is the annual ARRL Nebraska State Convention on Saturday, May 11. You won't want to miss it! Come out, find yourself a good deal, take in some presentations, and spend quality time with your fellow Hams. VE sessions will be available for those wanting to upgrade their ticket and those just getting started in the hobby. Don't miss out on your chance to win great prizes through the raffle drawings.

If you are free the afternoon of Friday, May 10, Mike Long, KØSHC, is looking for volunteers to help move vendors' and flea marketers' items to their tables. Drop him a line at k0shc13@yahoo.com for more details.

While you are looking at your calendar, be sure to mark June 22-23 for Field Day. Shaun Munson, KØSMM, and his team are already working hard lining up everything.

Next, be sure to mark out the weekends of July 13-14 and July 20-21 for the Cornhusker State Games. This is the 40th anniversary of the Games, and LARC has been a part of the Games

since its founding. Watch your inboxes and upcoming LOGs for more details as we get closer.

Before I sign off, thank you to everyone who steps up and makes each of the events we enjoy possible. Thank you for the countless hours you put in behind the scenes planning, recruiting, organizing, and ensuring that each event is a success.

73 de NØADR

2024 ARRL NE State Convention
Ed Holloway, KØRPT

Registration has been open for some time. Tables are filling up fast. If you've not done so, go to www.lincolnhemfest.org and get your table now. You can pay your dues, entry fee and all other conventions fees on the site. Please bring your receipt on Friday or Saturday, whatever day you plan to be there. Looking forward to seeing everyone. Remember, there are 10 dual band HT's and 2 dual band mobiles along with gift certificates to Associated Radio as door prizes. Many other prizes are also on the list for winners. See you at the convention!

ARRL Contest Calendar
ARRL

May

No ARRL Contests

June

1-2 International Digital Contest

8-10 June VHF

15 Kids' Day

22-23 Field Day

Log Folding

Aaron Rogge, NØADR

Thank you to the April LOG folding crew: Ayden Rogge, Liam Rogge, Jon Peterson, Mitch Ryan, WDØEZI, NØJLR, KØJSL, KØKPH, And KDØRIY.

Join us for the next folding session!

Date: Monday, June 3, 2024

Time: 6:30 pm

Location: LARC Clubhouse, 4420 NW 41st St

2024 SKYWARN Training

Ed Holloway, KØRPT

Another great year of participation and successful completions. 102 attendees were there, 47 completed the quiz. Three of them were not amateurs, leaving the remaining 44. Of the 44, 9 were brand new to Storm Spotting. This year's training featured Rebecca Kern of NWS. She was very friendly and entertaining. If you missed this year's training, you'll want to add 402-406-8679 to your cell phone contacts. This will help mitigate the blocking feature found in most cell phones. Thank you to all those who came out and took the training this year. We appreciate your willingness to participate in SKYWARN.

Cars 'n' Stars

Shaun Munson, KØSMM



Looking for help with parking and shuttle duties for the "Cars and Stars" event on Saturday May 18th.

CARS

10am to 4pm @Speedway Motors

STARS

7pm to 11pm @ Branched Oak Observatory

Need at least 10 Hams at each location. I'm not expecting folks to help with both as that is a long day.

Please email or call:

Shaun Munson - kosmm@arrl.net

402-853-6523

Matt Anderson - nebraskasm@hotmail.com

402-480-5515

Convention

TextStudio

Nebraska ARRL Convention **Saturday May 11, 2024**

As you are aware, we are again holding our annual Nebraska ARRL Convention, Saturday May 11th. I have been given the task of getting Vendors and Flea Marketer's who purchase their tables in advance or those wishing to set-up early helping them get to their assigned tables. So my request to you is if you are available Friday May 10th, from 12:00 to 5:00 pm I could use your help! Please come to the Sandhill's Event Center formally known as Lancaster Event Center, 84th & Havelock Avenue the time listed and I will appreciate greatly your help!! If you have any questions please respond to (k0shc13@yahoo.com) and I will answer your questions asap. Thank you for your support and I look forward to seeing you!

K0SHC

Club Station News

A reminder that the LARC Club Station is available for use by any club member by appointment. All we ask is that we have a few days-notice so we can arrange to have a control operator open the station for you and provide a bit of instruction on the radios. We hope to have a regularly scheduled time each week when the station will be open for walk-ins, so watch the LOG, club web page, and nightly nets for updates.

For those interested in digital modes, we have acquired the necessary radio interface and software to operate FT8, the most popular digital mode ever! At present, we are limited to a multi-band vertical, but on FT8 you can work the world with low power and modest antennas! If you'd like to use the club station, just drop me an email, text or phone call and we'll make it happen!

Greg KTØK kt0k@arrl.net kt0k@windstream.net 402-937-3540 (voice or text).



VE Report

Chris Evens, KCØPJR, VE Coordinator

April VE Session

April got us back to our one normal session at the College View Church. We had seven candidates for which all have passed for a new or upgraded license. The results are as follows.

TECHNICIAN

- Paul Rogerson, KFØPXC, Papillion
- Scott Schwaninger, KFØPWN, Lincoln
- Bernice Slagle, KFØPXA, Lincoln
- James Smartt, KQ4QZU, Springfield, TN
- Clark Smith, KFØPVU, Lincoln

GENERAL

- Brian Hunter, KDØWIH, Fairfax, MO
- James Seibert, KFØPIZ, Bellevue

Congratulations to our new licensees! Volunteer Examiners (VE's) who participated this month are:

KCØDHM, KCØHN, KCØPJR, KJØHN, NEØTM, and WØBCL. Thank you to all for giving your time to promote and advance the great hobby of Amateur Radio.

Paul Mundt, KF9TV

The Lincoln Amateur Radio Club offers daily nets that welcome hams. The nightly ARES Net is daily at 21:00 local time.

There is also a Lunch Brunch Net on Monday, Wednesday, and Friday at 12:00. This is an informative and fun net, once again open to all. These nets are on 146.76 and 442.7 MHz.

Join us if you can!

2024 Annual Flea Market in the Drive Ed, KØRPT

The first half of the 4th annual flea market in the drive was well attended. About 50 folks came out on a very chilly morning and many deals were made. Six in total were set up and each had more than enough to ponder. A lot of conversation from older hams and new. Great to see this event growing. Much thanks to all who came out and had some fun.

Important - Second Reminder 2024 ARRL NE State Convention Ed, KØRPT

Registration has been open for some time. Tables are filling up fast. If you've not done so, go to www.lincolnhamfest.org and get your table now. You can pay your dues, entry fee and all other convention fee's on the site. Please bring your receipt on Friday or Saturday, whatever day you plan to be there. Looking forward to seeing everyone. Remember, there are 10 dual band HT's and 2 dual band mobiles along with gift certificates to Associated Radio as door prizes. Many other prizes are also on the list for winners. See you at the convention!

How Amateur Radio Works (HARW)

Bryan Leavitt, W0BCL

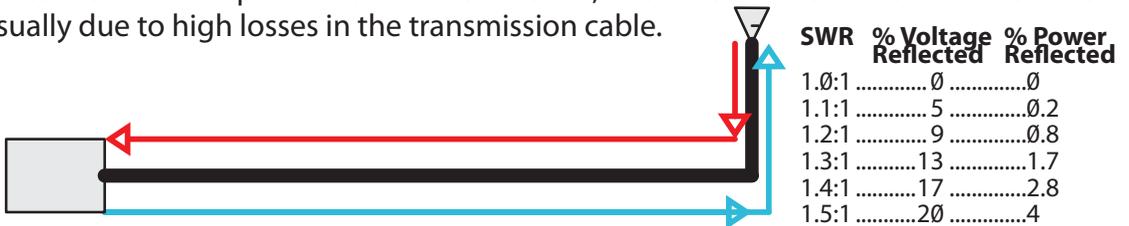
Impedance is resistance to AC flow, and as such it can and does vary according to the frequency of the signal. When working with transmitters, transmission cables, and antennas it is important that the impedance of all the components match each other as close as possible.

Maximum power is transferred when impedance's match. When there is a mismatch some of the power is not transferred to the cable and/or antenna, but is reflected in the opposite direction from the outgoing signal. The ratio of the outgoing power to the reflected power creates standing waves on the transmission line and is call the Standing Wave Ratio or SWR for short. A SWR of 1:1 indicates a perfect impedance match and therefore maximum power transfer, a higher ratio indicates that some of the outgoing signal is reflected.

Most modern semiconductor radios start to reduce their output power when the SWR gets above 2:1 and drastically reduce power above 3:1. According to chart 1, 33% of the voltage and 11% of the power are reflected when the SWR is 2:1. At 3:1, 50% of the voltage and 25% of the power are reflected. The reflected power can end up in a number of places; it can be lost in the feed line, heating it in the process; it can return to the transmitter and potentially damage it; it can be re-reflected from the radio and return to the antenna; it can be on the outside casing of the radio and/or on connecting cables in the shack, (this is why it is very important for all the equipment in your shack to be solidly grounded); and there are many other possibilities not mentioned here.

Because a reflected signal can return to the antenna and be transmitted, it can cause an echo or ghosting which can degrade the original and interfere with data, voice, and image transmissions.

It is possible to have a poor match at the antenna, but have a low SWR at the transmitter. This is usually due to high losses in the transmission cable.



Cable loss comparison - 100 watt output at transmitter - 100 ft cable

Cable	Frequency	Loss dB	Power at antenna
RG-8X	14 MHz	1.157	76.605 Watts
RG-8X	146 MHz	4.237	37.699 Watts
LMR-400	14 MHz	0.488	89.375 Watts
LMR-400	146 MHz	1.586	69.406 Watts

Dave Walraven, K5DVW

Estate and Equipment Sales

Gordon Trout, WØKBS

KØCWW

Category	Item	Brand	Model	Description	Asking
Accessories	302	Heathkit	HD-1422-A	Antenna Noise Bridge	\$25.00
HTs	319	Kenwood	TR-2500	2 meter handheld AS-IS	\$20.00

KAØJGH

Category	Item	Brand	Model	Description	Asking
Accessories	205	EF Johnson		Speaker	\$10.00
Accessories	211	Kenwood	MB-100	Mtg Brkt for TS-120 and TS-130	\$10.00
Amplifiers	217	TE Systems	0510G	50 MHz 175 watts mobile amp	\$250.00

LARC

Category	Item	Brand	Model	Description	Asking
Tuners	3	MFJ	MFJ-969	Deluxe Versa Tuner	\$175.00
Accessories	10	MFJ	MFJ-864	HF/144/440 SWR Meter	\$80.00
Tuners	11	MFJ	MFJ-945E	Mobile Tuner	\$125.00
Accessories	12	MFJ	MFJ-921	144/220 200 Watt SWR Meter	\$90.00
CBs	13	Radio Shack	21-1702	CB Radio	\$20.00
CBs	14	Radio Shack	21-1702	CB Radio - bad pwr plug	\$15.00
Misc	17	Kenwood	LF-30A	Low Pass Filter	\$20.00
Antennas	20	RadioWavz		20 Meter Dipole	\$45.00
Antennas	21	RadioWavz		40 Meter Dipole	\$50.00
Misc	24	MFJ	MFJ-5124K	Autotuner MFJ-993 to Kenwood	\$55.00
Antennas	26			Mobile Antenna CB	\$10.00
Antennas	27			Mobile Antenna CB	\$10.00
Antennas	28			Mobile Antenna CB	\$10.00
Accessories	105	Kenwood	LF-30A	Low-pass filter	\$25.00
Power Supplies	155	Power-One	HD15-6-A	15v-6amp power supply	\$25.00

WØDDM

Category	Item	Brand	Model	Description	Asking
Accessories	405	Daiwa	CN-103	140-525 MHz SWR & Power Meter	\$75.00
Accessories	410	Kenwood	VFO-820		\$150.00
Accessories	411	Kenwood	VOX-3	VOX Controller	\$50.00
Accessories	412	MFJ	LSP-520BX II	Super Logarithmic Speech Processor	\$25.00

Estate and Equipment Sales

Gordon Trout, WØKBS

WØDDM (Continued)

Category	Item	Brand	Model	Description	Asking
Accessories	414	MFJ	MFJ-986	Differential-T Tuner	\$200.00
Accessories	416	Mirage	MP2	SWR Meter	\$80.00
Accessories	417	Optolinx	CX12	PC to Radio Interface	\$25.00
Amplifiers	426	RFConcepts	RFC-2-23	2 meter amplifier 2w in 30w out	\$80.00
CBs	429	Radio Shack	TRC-520	wx/compass CB	\$25.00
Headphones	430	Sensiphone Superex		Headphones	\$5.00
Power Supplies	444	Magnetic	PS 1001MR	Magnetic Regulated Power Supply	\$10.00
Scanners	446	Realistic OptoScan456	20-144	Scanner	\$50.00
Test Gear	452	HP	HP 1220A	Oscilloscope	\$100.00
Amplifiers	462	Mirage	D 1010 N	430-450Mhz Amplifier 10in-100out	\$200.00
Tuners	463	Icom	AT-180	HF/50Mhz ATU	\$300.00
Microphones	465	Astatic	D-104	Microphone with T-UG8 stand	\$50.00
Tuners	468	Icom	AH-4	ATU HF & 6 meter	\$300.00
Tuners	470	Icom	AT-180	HF/50Mhz ATU	\$300.00
Tuners	471	Icom	AT-180	HF/50Mhz ATU	\$300.00
Power Supplies	473	Astron	RS-35M	35 amp Power Supply	\$200.00

WDØEGK

Category	Item	Brand	Model	Description	Asking
Accessories	6	TRAC	TE-284	Memory keyer	\$30.00
Accessories	8	TRAC		Memory keyer	\$30.00
Accessories	9	Viking		Phone patch	\$15.00
HTs	15	Icom	IC-4AT	440 MHz Handheld - no battery	\$40.00
HTs	16	Realistic	HTX-202	2 meter handheld - no battery	\$50.00
Keyers	21	Whiterook	MK-44	Mini Paddle	\$10.00
Speakers	32	HalliCrafters	R47	Metal speaker	\$50.00
Speakers	33			Speaker	\$5.00
Speakers	34			Speaker	\$5.00
VHF	37	Kenwood	TR-2200A	Portable 2 meter	\$20.00

Prices are negotiable. Make an offer. All items are used and sold AS-IS

"Contact: Gordon Trout, WØKBS, (402) 580-5326 after 12 noon or w0kbs@arrl.net"

