PARK RAIDIOPS .

WEST PARK RADIODS







FOUNDED 1947

Web:

http://www.westparkradiops.org
Email: w8vm-<at>-arrl.net

vm-<at>-arrl.net VOL.

April – May 2023 VOL. LVIII No. 3

CLUB'S W8VM SKCC #12111

WEST PARK NETS*

During the Covid crisis we have held extra Friday night 8 p.m. 2m nets. Our Monday and Friday night nets are on the NODXA's repeater at 8 p.m. Listen or check in. Join the fun. We thank the Northern Ohio DX Association for the use of their repeater, W8DXA, 147.36+ (107.2) for those nets.

These substitutes for actual on site meetings are:

Apr 3,7,10,17, 21, 24, 28 - 2m NET, 8 p.m.*

Apr 14* - MEETING - 7:30 p.m. *Subject to change

May 1,5,8,15,19, 22, 26, 29 - 2m NET, 8 p.m.* May 12* - MEETING - * 7:30 p.m.*

But when a meeting site opens up we plan to get back to on-site meetings. Thus the nets and Zoom meetings listed above may suddenly change.

UPCOMING CONTESTS AND ACTIVITIES...

(sourced from WA7BNM and ARRL information)

Apr 7 NCCC Sprint

Apr 15 Michigan QSO Party

Apr 23 North American SSB Sprint

Apr 29 10-10 Int. Spring Contest, Digital

May 5 10-10 Int. Spring Contest, CW

May 13 SKCC Weekend Sprintathon

May 19 NCCC RTTY Sprint

May 19-21 DAYTON HAMVENTION

May 27 CQ WW WPX Contest, CW

WEST PARK RADIOPS PROGRAMS FOR 2023*

April 14
May 12
June 9
July 14
Possible Choices*

* Subject to Change
QRP *
Linux Demonstration*
Picnic * POTA*

ORDERING NEW QSL CARDS?

Recently I ordered new QSL cards from a quality printer. PHOTOQSLS.COM

I had to learn one thing sort of the hard way. When you want to send a printer an image file to use for the front of the card, you will need to supply a 300 DPI image that is sized 3.5 inches by 5.5 inches. This dimension is left over from "the old days" but making your card some other size can cause a handling problem for some QSL bureau staff.

If you are going to send out cards through the ARRL Outgoing QSL Bureau, you need to look up the ARRL's instructions on the web, and follow them. This bureau cannot be used for cards going to U.S. hams, however!

DX stations ARE sending cards for FT8 QSOs. Just because you have a contact registered in Logbook Of The World does not prevent sending out QSL cards if you wish to

ARRL FIELD DAY NEWS...

2023 Field Day rules are out now. https://contests.arrl.org/ContestRules/Field-Day-Rules.pdf

There are three rule changes.

GOTA – multiple wordngs

Three power level options

Automated operations and multi-channel streaming prohibited

SWR AND CABLE TRIVIA...

So let's say you have a 100 foot long coax cable from your transmitter to your antenna and your antenna is poorly matched so that the SWR AT THE ANTENNA that you measure with your fancy **R + jX** digital meter is 3 to 1 (3:1). But it happens that your cable is cheap stuff, RG-58, and you want to work 6 meters on that antenna. Well, the loss on that RG-58 cable is 3 dB per 100 feet at 50 Mhz.

The ARRL Handbook used to have a nomogram showing the power loss on feedline with antenna SWR. But now we can use online calculators. Here is one.

https://kv5r.com/ham-radio/coax-loss-calculator/

Samples:

1) 3:1 SWR at antenna, 100 feet of cable with 3 dB loss at 50 Mhz. 100 watts in, 50 watts out.

Using Belden 9201 RG-58 cable, 42.7 watts out.

2) By the way, with the above 6m setup, what is the SWR at the transmitter/tuner?

Well there's a calculator for that too. This one is based on the graphs that at one time appeared in ARRL handbooks.

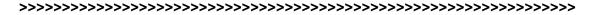
https://w4olb.org/files/documents/SWR%20and%20Metering%202020-5-21.pdf

With a tuner and a fancy digital SWR meter you measure SWR at the transmitter/tuner as 3:1. But the line loss is still 3 dB per 100 feet at 50 Mhz. The equivalent SWR at the antenna is actually so high that the power loss is nearly 100%, and you don't radiate anything!

And here is another factoid: the SWR at the load (antenna) is always higher than at the transmitting end. That's because SWR is not just a ratio of forward power and reflected power. It's more complicated than that. It is, for VSWR (voltage SWR)

VSWR=Vfwd+VrefVfwd-Vref

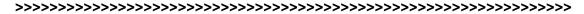
The forward power is less at the antenna than at the transmitter because of line loss.. The reflected power is less at the transmitter/tuner than at the reflecting end (antenna) for the same factor of line loss. Pick some numbers and try the equation above.



ARTIFICIAL INTELLIGENCE...

Something described as Artificial Intelligence (AI) has become a big topic in the software engineering world in just the last three months or so. One already well known tool is named ChatGPT. That software has already been demonstrated to be capable of faking a person's voice so well that I could call you on the telephone and sound like your father or Walter Winchell (I might have a problem faking Walter's accent though?).

So - how long will it be before AI can decode CW off the air in QRN and carry on a CW contest all day or night without human help? Multi-steaming CW? Ability to copy all the CW signals in a 2.8 kHz band all at the same time and QSL all of them with different audio frequencies, similar to FT8, FT4, etc.? Maybe that AI will be running by October 2023 in the CQ WW CW contest on November 25? Would you want to compete with the AI?



HAM RADIO CONTESTING BUZZ WORDS...

http://contestuniversity.com/attachments/Contesting Terminology.pdf

Ham radio enthusiasts, AFTER passing their first license exam and getting into HF radio (probably VHF also) find they have to learn many new terminologies and words in order to get along in the many fun things to do in ham radio contesting. Here's is a sample.

Lockout A means of preventing two transmitters from keying or transmitting simultaneously. A hardware lockout accomplishes this task by inhibiting the transmit/key line on the different radios with a lockout circuit.

Multiplier Bell A frequently used motivational device for multioperator contests. The sound of a bell going off in a room of operators when a new multiplier is worked by one of them manning different radios is familiar to many successful multi-operator stations.

Penalty Penalties are additional deductions made for unverified or inaccurate information submitted as part of one's claimed score.

Point and shoot Also known as point and click. A refinement of the search and pounce operating method which is supported by most major logging software programs. With this method, the operator clicks on calls presented in a window on the monitor, so that the frequency of the radio is immediately changed to the frequency of the call listed.

RBN Reverse Beacon Network is a internet-based network of dedicated wide band receivers around the world which decode CW signals in real time and generate "spots" which contain frequency, signal strength and other information.

Six Pack A six pack is a relay controlled matrix coax switch with two inputs and six outputs. It is used by many stations running SO2R (Single Operator Two Radios) as a means of allowing either radio to have access to any antenna.

Spot A spot generally refers to a posting of information on the frequency and callsign of a station in the contest, usually received from an internet or packet radio network.

WWROF The World Wide Radio Operators Foundation is an independent organization committed to supporting radio contesting worldwide.

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The following helpful websites are safe from malware. The sites show you different ways to display pages on your monitor(s). The methods apply to Windows 10 and 11 but probably not to an older OS. The second URL might apply if you have certain connections to dual monitors.

https://www.howtogeek.com/429223/master-windows-10s-alttab-switcher-with-these-tricks/

https://support.microsoft.com/en-us/windows/set-up-dual-monitors-on-windows-3d5c15dc-cc63-d850-aeb6-b41778147554

A "4x2 Matrix HDMI powered switch" works for K8LBT in NODXA.

"The device is a 4x2 Matrix HDMI powered switch. With one setting, it allows me to use both 27" monitors on one laptop. With another setting, it allows me to use both monitors on the desktop."

ORIGIN OF "CQ"...

(This is a direct quotation from AC6V.COM, with a spelling repaired.)

From The ARRL:

The telegraph call CQ was born on the English Telegraph nearly a century ago as a signal meaning "All stations. A notification to all postal telegraph offices to receive the message." Its meaning was close to the present meanings of QNC and QST. Like many other telegraph terms which originated on the landlines, CQ was brought over into radio and used as a general call to all ships by the Marconi Company. Other companies used KA until the London Convention of 1912, which adopted CQ as the international general call or "attention" signal. CQ still means, literally, "attention" but in amateur radio its meaning is perhaps more accurately described by Thomas Raddell who compared it to yelling "Hey, Mac!" down a drain pipe.

But why the letters CQ? From the French, **sécurité**, (safety or, as intended here, pay attention).

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A LAYPERSON'S GUIDE TO UNDERSTANDING SPARK MODE ...

The equations of Maxwell's Laws of Electromagnetic Fields (which appeared in the **LOG** years ago) have a part about magnetic fields. If these equations were not true, early spark operation in amateur radio could not have happened.

https://em.geosci.xyz/content/maxwell1_fundamentals/formative_laws/ampere_maxwell.html

$$\int_{S} \mathbf{
abla} imes \mathbf{b} \cdot \mathbf{d}\mathbf{a} = \oint_{C} \mathbf{b} \cdot \mathbf{d}\mathbf{l} = \mu_{0} \left(I_{enc} + arepsilon_{0} rac{d}{dt} \int_{S} \mathbf{e} \cdot \hat{\mathbf{n}} \; \mathrm{d}\mathbf{a}
ight)$$

The above equation is called the Ampere-Maxwell equation. OK, don't panic.

What does that mean? The following explanation is going to bypass how professional physicists would teach and just go for Keeping It Simple. For starters, "**b**" is the magnetic field strength and "**e**" is the electric field strength.

So, magnetic fields cannot exist without a flow of electrical current. That's a physical law (law of "Nature") that cannot be broken. (It's one of those laws that even UFO's can't defeat, but that's another story.) So if "I" is the current flowing through a wire coil (thus there is a magnetic field in the coil) and if that current is instantly turned off by opening a switch or key and becomes zero, the magnetic field "b" needs another means to exist at least while the field collapses. So there becomes an instant need for "e", the electric voltage in the spark gap, to almost instantly grow without bounds until the air in the spark gap breaks down with a miniature flash of lightning, a 'spark', providing a replacement current for a while, while the magnetic field collapses.

(With a spark coil connected to an antenna, a radio operator was able to transmit the CW signal **CQD MGY** while the *Titanic* was sinking.)

In another variation, one might ask how an iron magnet can have magnetism if there is no current flowing in a wire anywhere near it. That happens because all atoms of matter in the Universe have electrons moving around the atomic nuclei like moths circulating around an outside lamp on a summer night. All electrons have "spin". Loosely, spin resembles the rotation of a child's toy top. In iron atoms, the electrons can conveniently be made to have all of their spin orbits get in parallel and "add up" to create a magnetic field around the whole magnet by (a) creating a temporary constant magnetic field around the iron with a wire coil clowing electric current, and (b) doing that when the iron is not too hot (below the Curie temperature). Once the electrons have their spin lined up, the temporary magnetic field can be removed and the iron will still remain magnetized. In a few other natural metal elements the same abilities exist with greater effects. So by melting certain metallic combinations together into an alloy, and casting pieces, "supermagnets" can be formed. Machining those pieces into parts for electric motors make possible high torque electric drills. (Thank you Nikola Tesla for inventing the electric motor.)

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Comment:

[&]quot;I never heard of a magnetical engineer."

THE DX SCENE...

(Courtesy of the NG3K website)

Call, Start Date, End Date, DXCC Entity H44MS.2023 Feb15.2023 Apr30.Solomon Is Z81D,2023 Mar13,2023 Apr22, South Sudan 3A8AB,2023 Apr01,2023 Apr30,Monaco H44MI,2023 Apr02,2023 Apr12,Solomon Is FR,2023 Apr09,2023 Apr23, Reunion 4W,2023 Apr10,2023 Apr22, Timor Leste VP9KF,2023 Apr12,2023 Apr26,Bermuda E51,2023 Apr13,2023 Apr28, South Cook Is TG9ADM,2023 Apr15,2023 Apr16,Guatemala T88UW,2023 Apr15,2023 Apr16,Palau VU7W,2023 Apr15,2023 Apr29,Lakshadweep Is V31JZ/p,2023 Apr17,2023 Apr23,Belize VP2V.2023 Apr18.2023 Apr22.Br Virgin Is 6Y,2023 Apr19,2023 Apr23, Jamaica 3A,2023 Apr20,2023 Apr23,Monaco 5X2I,2023 Apr24,2023 May10,Uganda 8Q7KB,2023 Apr27,2023 May07, Maldives C37RC.2023 Apr29.2023 Apr30.Andorra HK0,2023 May02,2023 May20,San Andreas & Providencias OJ0,2023 May20,2023 May27, Market Reef 8Q7VJ.2023 May20.2023 Jun04.Maldives V47JA,2023 May23,2023 Jun07,St Kitts & Nevis 9X2AW,2023 May23,2023 Jun14,Rwanda TF,2023 May26,2023 May29,Iceland MM0UKI/p,2023 May28,2023 May31,Scotland VP2V,2023 Jun23,2023 Jun29,Br Virgin Is OY,2023 Jun25,2023 Jul05, Faroe Is FP,2023 Jun27,2023 Jul11,St Pierre & Miguelon PJ5,2023 Jul06,2023 Jul18, Saba & St Eustatius TG4,2023 Jul23,2023 Aug04,Guatemala KH0,2023 Aug31,2023 Sep14, Mariana Is T8,2023 Sep12,2023 Sep18,Palau OX0J,2023 Sep15,2023 Sep21,Greenland KH2,2023 Sep16,2023 Sep30,Guam YJ0TT,2023 Oct01,2023 Oct31,Vanuatu J88PI,2023 Oct02,2023 Oct10,St Vincent V7,2023 Oct03,2023 Oct15,Marshall Is E6AM,2023 Oct10,2023 Oct27,Niue V63AH,2023 Oct18,2023 Oct30, Micronesia PJ5,2023 Oct25,2023 Oct31,Saba & St Eustatius H40WA,2023 Oct31,2023 Nov14,Temotu E6AJ,2023 Nov03,2023 Nov10, Niue FO,2023 Nov04,2023 Nov19, Marguesas TX5S,2024 Jan17,2024 Feb03, Clipperton Is

2023 ELECTED CLUB OFFICERS

President Glenn Williams (440) 934-5566

AF8C

(440) 934-5566 Vice President

WA8NVW

Karl Beckman (440) 234-4839 Secretary

Open Secret

<u>Treasurer</u> Ann Wadsworth

KA8ZEP

Fifth Board Member Stephen Kinford (216) 702-8384

N8WB

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FIELD EVENTS COMMITTEE - OPEN

Safety Officer OPEN

License Trustee N8WB

ARRL VE'S

AF8C, N8WB, W8MET, KC8FOS

ARTICLES SUBMITTED

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NET MANAGER **W8WLI**

CONTESTS, SATELLITES N8WS and N8WB

PROPERTY CUSTODIAN N8WS

N8WS

8TH AREA BUREAU LETTER MGR. **AF8C** (8V)

PROGRAMS
KC8FOS and AF8C

EDITOR, WEBMASTER AF8C

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MEETINGS: WEST PARK RADIOPS ARC plans to (might)
eventually resume meeting each month at
Cuyahoga Community College West Campus in the Public Safety Training Center,
11000 Pleasant Valley Dr. at 7:30 PM sharp.

But our on-site meetings were suspended during Covid-19 protocols. Therefore we have monthly meetings on Zoom on the second Friday at 7:30 p.m.

Dues are \$15/yr. We welcome anyone interested in amateur radio to our activities. We operate Monday and Friday night nets on 147.36+ (107.2 Hz) MHz at 8:00 p.m. Eastern.

http://www.westparkradiops.org
 mailto:w8vm<at>arrl.net

W8VM



