



FOUNDED 1947

# WEST PARK RADIOPS



# LOG



Web: <http://www.westparkradiops.org>

Email: [w8vm-<at>-arrl.net](mailto:w8vm-<at>-arrl.net)

**CLUB'S W8VM SKCC #12111**

**Our Nets 147.36 107.2 Mon/Fri 8 p.m.**

February - March '21  
VOL. LVI No. 2

## 2021 CLUB OFFICERS

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## COMMITTEES

### FIELD EVENTS COMMITTEE - OPEN

Safety Officer  
OPEN

License Trustee  
N8WB

ARRL VE'S  
AF8C, N8CX, N8WB, W8MET

ARTICLES SUBMITTED  
N8FDY

ANTENNA GURU  
W8PN

CLUB AWARDS MGR  
OPEN

CONTESTS, SATELLITES  
N8WS

DX REPORTER  
N8WS

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

PROGRAMS  
KC8FOS

EDITOR, WEBMASTER  
AF8C

LABELS DATABASE  
N8CX

## WEST PARK EVENTS \*

\*Subject to change

**During the Covid crisis we will hold an every Friday night 8 p.m. 2m net on the usual frequency listed above. We thank the Northern Ohio DX Association for the use of their repeater, 147.36+ (107.2)**

**These substitutes for actual first and third Friday meeting nights are:**

Feb. 5 - 2M NET\*  
Feb. 19 - MEETING ON ZOOM\*  
Mar. 5 - 2M NET\*  
Mar. 19 - MEETING ON ZOOM\*

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## CONTESTS AND EVENTS

- de WA7BNM & ARRL

Feb 6 North Am Sprint, CW  
Feb 13 CQ WW RTTY WPX  
Feb 20 ARRL DX Contest, CW  
Feb 27 CQ 160m Contest, SSB  
Mar 6 ARRL DX Contest, SSB  
Mar 13 Stew Perry 160 Cha.  
Mar 20 BARTG HF RTTY Test  
Mar 27 CQ WW WPX Contest, SSB  
Apr 4 North Am SSB Sprint

## SOAPBOX

West Park Radiops technical interests include recent new amateur radio technologies, new antenna projects, contesting, and DX, to name a few.

**Our Public Service events are suspended.**

**Our Monday and Friday night nets we are on the 147.36+ (107.2 PL) repeater at 8 p.m. Listen or check in. Join the fun.**

This document was created using LibreOffice, a PDF creator, and UBUNTU LINUX. Use of Microsoft products was limited to as few applications as possible.

**PREZ SAYS ...**

The new year seems off to a positive start. Some of our members are already getting vaccinated, it has been a mild winter so far and we have strong attendance at our Zoom meetings and nets. I am hopeful we can start having in-person get-togethers starting later this year.

I hope you have interesting projects to keep you busy over the winter. My ham shack computer died over the holidays so I decided to switch from Windows to MacOS using a Mac Mini with the M1 ARM chip. Goodbye Intel. I am currently trying out RUMlogMG for logging and WSJT-X 2.3.0-rc4 (the only version that supports the M1 Mac) for data modes.

Talk to you all on the nets and hope to see you at the February 19 Zoom meeting at 7:30 PM.

73, Tom, N8FDY

**WEST PARK PUBLIC SERVICE...**

For many years West Park Radiops volunteers have helped LCAC volunteers sort and deliver articles to the needy. As an ARRL Special Service Club in past years, our members assisted in this activity three times every year. During COVID-19 those activities are suspended.

**RECENT NETS & TALK...**

Club nets have switched over to only using 147.36+ (107.2 PL) at **8 p.m.** local on Mondays, and Fridays during the COVID-19 crisis. Many interesting discussions occur and often with no prior planning. However, you must have a clear shot at the repeater's receiving antenna to use an HT. Please consider your 2m antenna systems and how they perform for the net.

In general, radio net activity provides virtual public service practice and keeps our radios in tested operation and weeds out problems.

**TO YOUR HEALTH!...**

We wish everyone a STAY SAFE and BEST OF LUCK time during these special COVID-19 stay-at-homes. Looking forward to the vaccination needles.

**NEW AND OLD HISTORY OF THE DXCC AWARDS...**

( by email from Norm Fusaro, W3IZ, at the ARRL )

DXCC goes back to the 1935 when Clinton B. DeSoto offered up an idea of a way to keep score of .countries worked. DXCC began January 1, 1937 with 231 countries on the list. Amateurs were off the air during WW II and didn't return until November 15, 1945. Because so much had changed as a result of the war, the DXCC program started with a new list of countries and everyone had a clean slate. This is why you will see notes in the DXCC list saying that only QSOs beginning November 15, 1945 count for the entity. A lot has changed since 1945 and we now have 340 entities on the current DXCC list. The first DXCC awards available were mixed and Phone (AM). The CW award did not come around until 1975 as a way to promote use of the mode. The RTTY, now Digital award was originally 100 countries with no endorsements but later was changed to permit endorsements for all countries, current and deleted, on the DXCC entities list. The same is true for the 160m DXCC award. Five Band DXCC began January 1, 1969.

Individual band awards were first offered in 1970s but permitted the applicants to submit QSL cards as far back as the start of DXCC, November 15, 1945. In 2003 the DXCC Challenge was offered. This one is for those who want to try to them all on all bands 160m - 6m, excluding 60m. There are no awards or any plans to add awards to 60m for a variety of reasons. The Amateur Radio Service is a secondary user on this band. The Amateur Radio Service is a secondary user on this band. Most 60m allocations were permitted to fill the void between 7 and 3.5 MHz to provide communications during emergencies and to enable government agencies communicate directly with operators from the Amateur Radio Service. This was most recently demonstrated during the response to hurricane Maria in Puerto Rico. Many countries are still trying to get a 5 MHz allocation.

**DRIVING WHILE HOLDING MIC...**

(From the OHIO SECTION JOURNAL  
JANUARY EDITION)

By the Great Lakes Division State Government  
Liaison Bob Winston, W2THU, w2thu@arrl.net

Happy New Year to all!

I sure did not expect this pandemic to result in the Dayton Hamvention being canceled two years in a row, but that is exactly what happened, along with many other smaller hamfests all over Ohio. Fortunately, amateur radio clubs have learned how to conduct business and offer some very good programs via Zoom and other virtual modes. The onset of vaccinations will eventually allow us to meet in person again. However, the use of the internet to share our meetings with hams around the world may become the norm post Covid-19.

**STATUS OF THE ANTI-TEXTING BILL** –There has been some activity on this bill (SB-285) that I did not mention in my previous article. There were two hearings in May 2020 before the Senate Local Government, Public Safety and Veterans Affairs Committee. At the second hearing, there were 25 witnesses who testified in favor of the bill, ranging from the Ohio State Patrol to the AAA Auto Club. Interestingly, at the third hearing held on 22 September 2020, there was testimony against the bill by the Office of the Ohio Public Defender. The Public Defender argued that although they agreed that distracted driving should be a primary offense, they felt the penalties were way too harsh because a guilty party would be sentenced to mandatory prison time for operating an electronic device when they did not intend to cause any harm. The Public Defender suggested that our society needed a cultural change, such as occurred with attitudes toward drunk driving and use of seatbelts, to solve the distracted driver problem. The bill is still in the Senate committee.

< <http://arrl-ohio.org/news/2021/OSJ-Jan-21.pdf> >

**RADIO DAY IN THE PARK...**

In October 2020 on a beautiful Saturday in North Olmsted City Park some West Park Radiops amateurs were testing antennas and radios.



*Frank, KC8VKA*



*Frank, and Axel, W8MPX, and a visitor*

**UPCOMING DX FOR YOU...***(Courtesy of the NG3K website)***Call, Start Date, End Date, DXCC Entity**

5UAIHM,2021 Jan07,2021 Feb11,Niger  
 JW,2021 Jan08,2021 Jan31,Svalbard  
 OX,2021 Jan08,2021 Jan28,Greenland  
 HI9,2021 Jan09,2021 Jan30,Dominican Republic  
 OX3LX,2021 Jan13,2021 Jan30,Greenland  
 FG,2021 Jan21,2021 Feb06,Guadeloupe  
 8Q7AO,2021 Jan25,2021 Feb07,Maldives  
 5VDE,2021 Feb11,2021 Feb20,Togo  
 KH9,2021 Feb15,2021 Feb28,Wake Is  
 ZF2BJ,2021 Feb20,2021 Mar05,Cayman Is  
 3A,2021 Feb24,2021 Mar02,Monaco  
 PJ7AA,2021 Feb27,2021 Mar27,Sint Maarten  
 8Q7CQ,2021 Mar06,2021 Mar22,Maldives  
 A25VR,2021 Apr28,2021 May24,Botswana  
 V47JA,2021 Jun12,2021 Jul10,St. Kitt& Nevis  
 PJ5,2021 Jun22,2021 Jun28,St. Eustatius  
 FP,2021 Jun29,2021 Jul13,St. Pierre & Miquelon  
 P4,2021 Jul07,2021 Jul14,Aruba  
 J88PI,2021 Jul23,2021 Aug03,St. Vincent  
 TO5T,2021 Aug08,2021 Aug16,St. Pierre & Miquelon  
 CY0C,2021 Oct01,2021 Oct30,Sable Is  
 V47JA,2021 Oct16,2021 Nov12,St. Kitt& Nevis  
 PJ5,2021 Oct25,2021 Nov01,St. Eustatius

*Copy this as a CSV file for EXCEL.***UK RADIO AMATEURS IN WW II...***( assisted by information in QRZ.COM )*

A newly presented story about amateur radios operators in the U.K. assisting in the gathering of radio intelligence about WW II Germany is available as a 30 minute video for your viewing.

< <https://forums.qrz.com/index.php?threads/amateur-radio-history-story-from-the-bbc.744371/> >

**PROPAGATION SUMMIT SLIDES...***(from the ARRL Web news)*

01/27/2021

YouTube recordings and PDF files from the 2021 Propagation Summit hosted on January 23 by Contest University are available now at

< <http://www.arrl.org/news/2021-propagation-summit-session-recordings-available> >

**LISTEN TO YOUR SSB SIGNAL ON THE AIR...**

If you have a transceiver operable on HF and a license that allows you to be on 40m phone (in northeast Ohio) you can check on how your signal sounds on HF. This discussion is mostly aimed at SSB operation. On 40m that will be on LSB. Next you will need a PC or Mac that can let you browse on the Web with audio speakers or headphones.

Finally you may want a way of recording audio from the Web. One way is to buy a digital voice recorder and learn how to use it. But it's likely better and certainly less expensive to use free software on you computer. The reference for this article is to install Audacity on your PC and learn how to record sound from your own browser. You might use YouTube or some channel somewhere like on Yahoo. In order to record a sound file in Audacity from a browser will take some tricky fiddling with various setups in Audacity. Perhaps after all this warm up you might figure on just going to the target on the Web that is mentioned next and forget about all that recording stuff.

Open up "WEBSDR.ORG" (NOT the .COM site!) and learn how to set up and learn how to set up LSB on an SDR on about 7295.0 kHz so you can listen to your on the air signal. Go to the Milford, PA, SDR (also selectable with the URL < <http://websdr.k3fef.com:8901/> >

which at least in the daytime has an open path from here to there.

Finally you need to transmit a legal test signal on that frequency with something like 100 watts and listen to yourself, perhaps in the daytime. Folks tell me there is enough delay on the SDR that you can talk and hear yourself a bit later without recording. But what I did was record myself on a PC for later playback. (Be sure to avoid acoustic feedback.) -de AF8C

## DENSITY MODULATION ...

-de AF8C

It doesn't take long for a prospective radio amateur who is studying the answers in the VEC's question pool to find out that there are different types of modulation of the signals transmitted. There's AM which was second in history after CW to be transmitted on the radio. It took different numbers of years for other modes such as FM and SSB (USB and LSB) to appear on the scene. Some of those modes are dependent on the waveform of the radiated signal to have a variable amplitude (AM) or variable frequency (FM). There's also phase modulation (PM). PM evolved into various complicated forms that are used in modern telecommunications such as Quadrature Phase Shift Keying (QPSK). Most of those modes require that receiver demodulation of the signals require mixers and/or phase sensitive networks to turn the modulation back into audio voice, CW, or decoded ONES and ZEROs of digital signaling.

But there is at least one more mode proposed<sup>[1]</sup>, called Density Modulation (DM) or perhaps Probability Density Function modulation (PDF). This mode, useful for transmitting binary data, would be somewhat immune to amplitude variations and frequency variations. The mode likely has a reduced tolerance to lower signal-to-noise ratio (S/N or SNR) which is one of the first things to consider. But some communication channels have very low noise so SNR would be of less concern. This "new" mode (published more than 15 years ago) would be demodulated with the computer programming technology called "pattern recognition". Note: waveforms are repetitive for many cycles, but only one cycle of each is shown as in these examples. Detected data however is cumulative until replaced by the opposite result. These are two of possible thousands of clever waveforms. Just any two sets make a ONE and a ZERO to detect as two densities.

<sup>1</sup>Carrier Modulation Via Waveform Probability Density Function, G. L. Williams, IEEE

<https://ntrs.nasa.gov/api/citations/20050198966/downloads/20050198966.pdf>

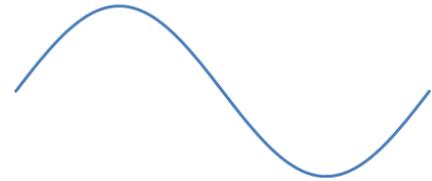


Illustration 1: First waveform example

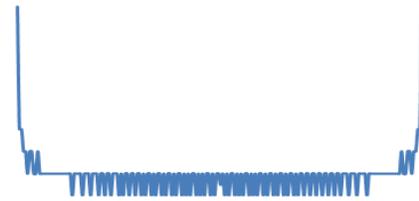


Illustration 2: Detected Density of First Waveform



Illustration 3: Second waveform example



Illustration 4: Detected Density of Second Waveform

# WEST PARK RADIOPS

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A NON-PROFIT SCIENTIFIC AND EDUCATIONAL CORPORATION, FAIRVIEW PARK, OHIO.  
MEETINGS: WEST PARK RADIOPS ARC meets the FIRST and THIRD Friday evenings each month at  
Cuyahoga Community College West Campus in the Public Safety Training Center, 11000 Pleasant Valley Dr. at 7:30 PM sharp.  
Dues \$15/yr. We welcome anyone interested in amateur radio to our meetings.  
We operate Monday night nets on 147.36+ (107.2 Hz) MHz at 8:00 p.m. local time.

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## W8VM

