



# Zero Beat

Volume XXXV, no 4

<http://www.w8lky.org>

April, 2021

Serving the Tri-County area since 1986

## Upcoming Club Programs & Events

May 1st - Club Breakfast

May 12 - Club Meeting  
(On Air)

[for all events, see w8lky.org](http://www.w8lky.org)



## President's Remarks

The beat goes on!!!

Where has the time gone? It just feels like yesterday we started the 2021 year for the Alliance Amateur Radio Club.

Here we are at the halfway point in the 2021 year of club operations. But we are turning the corner, heading towards the home stretch. So for those who are thinking of running for office for the 2022 AARC year, they should start giving it some serious thought now.

## Club Breakfast

At 8:30am on the first Saturday of each month, we meet for breakfast at Don Panchos Restaurant (2105 W. State St, Alliance).

All are welcome.

## Club Meeting

Our next club meeting will be held on May 12th at 7:30PM.

This month's meeting will be on our Two Meter repeater

145.370 with a PL of 110.9hz on the Transmit, and receive.

Events coming up include: Monthly VE sessions (See calendar for dates), ARRL Field Day in June, Carnation Grand Parade in August, Alliance Rotary Castle Run on Labor Day, one additional parade in August (we are still working on this event) and the antenna and towers installation projects, and all of this in our club year of 2021 (Nov 2020-Nov 2021). We need to get the ball rolling on our Summer ways and means Project (we need a chairperson on this) and the item will be either be another HF Radio or a gasoline powered electric generator. Last year, we raffled off a HF Radio, with almost 90% of the sales on line. Joe, N8JEW worked the air waves by contacting many websites and various nets on

*(Continued on page 2)*

## Presidents Remarks

*(Continued from page 1)*

air.

We have two new projects well underway.

Doug (KB8DNQ) our club's VP started up and established a Digital Net. It seems to be gaining more Ham participation as time goes on.

James (KD89VT) suggested we create our own VE team and conduct monthly sessions through Christmas 2021. We have the perfect place, we are using two rooms at First Christian Church in Alliance. We could use a few more club members who are VE certified or be willing to update their VE credentials. It would be nice for those in our club who are Techs up-grade to General. One of the most important events in the next several months is ARRL Field Day June 26-27. The event will be held in Sebring, Ohio at the Sebring Camp Grounds (location details to follow) This is a "All Hands On Deck Event. This is especially true for all newer members who have never participated in a field Day event. We will set up antennas and use our two HF base units which are normally stored in special containers in our new emergency deployment trailer. Newer members will be paired up with seasoned members and they will receive "On The Job Training"/ The newer member will also get time on the HF units under the supervision of senior operators. Just remember, if a terrible event would occur in our area, and if we would be asked to deploy, set up and operate our HF units, we would be ready, and all the training you receive on Field Day would pay off in dividends.

Don't forget our club breakfast this coming Saturday, May 1st, at 8:30AM at Don Panchos, good food, great fellowship and bring a friend who might be interested in Ham Radio. Keep passing out our business cards, and tri-fold information pamphlet. In the meantime, stay connected, get "On Air" with all our nets. Remember, we are turning the corner on COVID, remain calm and abide by current and ever changing CDC guidelines.

73, Ron, KE8HCY

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## AARC Meetings

The Alliance Amateur Radio Club meetings are temporarily cancelled due the COVID19 Pandemic. For now, our meetings are being held on our two Meter repeater. See pg. 1 for more information.

145.370 (-) W8LKY  
(PL - 110.9hz)

### 440 MHz

442.350 (+) W8LKY  
(PL - 131.8hz )

## Find Us Online:

**Web:** [www.w8lky.org](http://www.w8lky.org)

**E-mail:** [w8lky@w8lky.org](mailto:w8lky@w8lky.org)

## Nets

### Tuesday

**Homeland security Net**  
7:00PM 147.51 Simplex

### Thursday

#### Ten Meters

7:30 PM 28.122 MHz (Olivia)  
8:00PM 28.420 MHz (SSB)  
8:20PM 28.100 MHz (CW)

#### Two Meters

9:00 PM 145.37 MHz W8LKY (-)

## AARC Repeaters

2 Meters

## AARC Nets

We run several nets during the week.

### **Homeland Security Net** -

Each Tuesday evening at 7PM local time, we run the Homeland Security Net on 147.51 simplex. Your net manager is Dwight, KD8YFV.

Then, on Thursday night, we have four nets beginning at 7:30PM.

### **AARC Digital Net** -

Our most recent addition is the AARCDN. It begins at 7:30PM each Thursday night on 28.122. Set the mode on your digital software to Olivia 8/500.

According to Net control Doug. KB8DNQ,

**To check into the net:**

**"AARCDN de (your call), name. city, with or without a comment"**

**Then when making a comment or addressing the net use**

**"AARCDN de (your call) ' and then your comments.**

For more information, contact Doug, KB8DNQ at [kb8dnq@gmail.com](mailto:kb8dnq@gmail.com).

### **Tri-county News, Training, and Information Net** -

This begins at 8PM Local (0100 UTC right now), on 28.420 SSB. The Net manager is John, KD8MQ

**W8LKY CW Net** - The CW net runs immediately after the SSB net. You can find it at 28.100. The net manager is frank, WA8WHP.

**Two Meter Net** - The 2 Meter net starts at 9PM local on the W8LKY 2 Meter repeater (145.370 PL:110.9). Tune in early to get on the list, as they take early check-ins. Net manager is Tomas, KC8ZEH.

## Hamfest Updates

We have some updates since last months column.

Here's what 2021 is looking like as of this week.

- July 10th - **Mansfield** Mid-summer Trunk-fest at the Richland County Fair-grounds. (<http://www.arrl.org/hamfests/mansfield-mid-summer-trunkfest>)
- July 17 - NOARSFest (Elyria) <https://www.noars.net/hamfests/noarsfest/>
- August 7th - DX Engineering Hamfest, and Great Lakes Division Convention <http://dxengineering.com/>
- September 26 - **Cleveland** Hamfest <http://www.hac.org/>
- October 31 - Massillon Hamfest <http://www.w8np.org/hamfest.htm>
- Nov 13/14 **Fort Wayne** <http://www.fortwaynehamfest.com/>

## Volunteers Needed For Pro Football Hall of Fame Parades



It's that time of year again (well, almost...)

The 2021 HOF Festival Parade(s) will need Ham Radio operator volunteers.

Many of you have participated in past years, and are familiar with the event(s). This year, the Community Parade will happen on Sunday July 25th 2021 at 2:30pm, and the Grand Parade will happen on Saturday August 7th 2021 at 8:00am

If you would like to participate this year, we have made it even easier for you to sign-up! Simply go to <https://hofhams.info> and fill out the form. You can even see the most up-to-date copy of the assignment roster for each event.

If you have any questions, you may contact Terry Russ, Wade Huthmacher (info posted on the site), or myself Justin W8JKC ([justin@w8jkc.com](mailto:justin@w8jkc.com), 330-87-W8JKC)

The Community Parade uses about 15 operators, and the Grand Parade uses about 35 operators each year. 73, de Justin W8JKC

## Estate Sale - WA8NZE / WD8IKC (Stan & Doris Smith)



You may have learned that two of M.A.R.C.'s very long time members have become Silent Keys. Left behind in their estate is a collection of Stan (WA8NZE) & Doris (WD8IKC) Smith's amateur radio equipment.

My Dad & I as well as Perry Ballinger (W8AU) were contacted to help organize and set up the estate for a public sale. We have been coordinating this activity with Dana Snyder (Nephew of Stan & Doris) who is in charge of the Smith's affairs.

At the wish of the family it was requested that members of the Massillon Amateur Radio Club have the chance to view and purchase items before the general public and larger ham community.

Everyone is welcome to attend this sale on Saturday, May 1, 2021 starting at 8:00 a.m. - 4:00 p.m. As they are extending this early invitation, the family would appreciate not arriving before 8:00 a.m. the day of the sale.

Items that will be available - (Transceivers, Power Supplies, Coax/Antenna Surplus, CW Keys/Keyers Misc. Tubes, Tube-Tester Equipment, Meters, Tuners, Electrical items/Switches, Amplifier/Heathkit SB-220/1KW & Plenty of Small Pieces and Parts)

There is no formal inventory of the items. All equipment is or will be individually priced the day of the sale.

6201 Faircrest St SW, Canton, OH 44706

73 DE  
Evan - KE8IDH



Name	Price	Model	Description	Condition	Working ?	Comment
Astatic	\$15.00		Stand only No Mic	good		
B & W	\$20.00	600	Dip Meter	fair	?	Missing coils
Drake	\$5.00	TV-1000-LP	Low Pass Filter	Good	Yes	There are 2 of these
Drake	\$75.00	2B	Receiver	Poor	NO	I think it can be revived to good condx - Included is another Drake 2B Chasis for parts-No knobs or tubes with this one
Drake	\$60.00	2AQ	Speaker/Q Multiplier	Good	Yes	Spkr is good-I believe the Q Mult works
Eico	\$10.00	760	Grid Dip Meter	Poor	?	Meter Stuck - No Coils
Eico	\$30.00	950B	Res. / Cap. Comparator Bridge	fair	?	Powers up
GAM	\$20.00	TG 2	2 Meter Mobile Ant.	decent	yes	These were Great Mobile antennas
GAM	\$20.00	TG 1	2 Meter Mobile Ant.	decent	yes	These were Great Mobile antennas
Hallicrafters	\$70.00		Speaker	fair to good	Y	Vintage from the late 50's - 60's
Heath	\$125.00	10-17	Scope	Good	Yes	Good Trace
Hickok	\$35.00	334	Digital Multimeter	good display	Yes	Cosmetically fair
Hickok	\$40.00	256	Signal Generator		?	Appearance Good
Hickok	\$60.00	220	Sem-Cond Anylizer		?	Appearance Good
Icom	\$40.00	IC2-TH	Hand Held	good	yes	Battery is dead
Icom	\$25.00	IC4AT	Hand Held	Dead Battery	?	No Chrgr - Cosmetically good
Jewel Ele Ins.	\$5.00	TO 3	AC Amp Meter	fair	yes	Vintage Antique
Kenwood	\$125.00	DM81	Grid Dip Mt	good	Yes	700Khz-250Mhz -Tested and works well--Has ALL coils
Meters	\$2 each		11 Various Meters	DB, Volts, Current	good	Yes unused condition
MFJ	\$30.00	204B	Ant. Bridge	fair	?	No Pwr Supply
Micronta	\$25.00	22195	Digital Multimeter	fair	Yes	
Midland	\$10.00		Trinidad CB Transceiver	good	?	12v & 110v- Powers up
Radio Shack	\$10.00		Speaker	fair	Yes	Cosmetically poor to fair Metal const.
Radio Shack	\$10.00		Speaker	fair	Yes	Cosmetically poor to fair Metal const.
Realistic	\$10.00	TRC 425	CB Transceiver	fair to good	?	
SBE	\$10.00	Trinidad	CB Transceiver	good	?	Powers up - has squelch
Siltronix	\$25.00	PM15	1500 Watt Meter	Fair	Yes	Cracked Meter Face
TRI	\$50.00	Digipet60	Freq. Meter	fair - good	yes	Powers up. Good display
HP	\$70.00	6100	Office Jet Printer	Like New	yes	with manual
HP	\$70.00	4800 series	Scanjet Photo Scanner	Like New	yes	with manual
	\$120.00		Buy Scanner & Printer together and SAVE \$20		yes	Scanner had very little use.
Siltronix	\$30.00	PM 15	1500 Watt Power Meter	Fair	yes	Noticable Scratch on plastic face

American Dynamics      \$20.00    ADMNLCD20    20" Multi Camera Security      Monitor yes      Black & White-Not Col-  
or

For info contact WA8SHP- ph: 330 257-9919 or wa8shp@aol.com--Will meet within reasonable distance for delivery of item (s).

There are manuals for some of the listed equipment. ASK about the manual when you inquire about an item.

There are also a few Manuals for Johnson, Heath & other vintage equip Mfgers that are FREE. Call for list

## Updated Radio Frequency Exposure Rules Become Effective on May 3

From ARRL.org

(4/12/2021) The FCC has announced that rule changes detailed in a lengthy 2019 [Report and Order](#) governing RF exposure standards go into effect on May 3, 2021. The new rules do not change existing RF exposure (RFE) limits but do require that stations in all services, including amateur radio, be evaluated against existing limits, unless they are exempted. For stations already in place, that evaluation must be completed by May 3, 2023. After May 3 of this year, any new station, or any existing station modified in a way that's likely to change its RFE profile — such as different antenna or placement or greater power — will need to conduct an evaluation by the date of activation or change.

“In the RF *Report and Order*, the Commission anticipated that few parties would have to conduct reevaluations under the new rules and that such evaluations will be relatively straightforward,” the FCC said in an April 2 *Public Notice*. “It nevertheless adopted a 2-year period for parties to verify and ensure compliance under the new rules.”

The Amateur Service is no longer categorically excluded from certain aspects of the rules, as amended, and licensees can no longer avoid performing an exposure assessment simply because they are transmitting below a given power level.

“For most amateurs, the major difference is the removal of the categorical exclusion for amateur radio, which means that ham station owners must



determine if they either qualify for an exemption or must perform a routine environmental evaluation,” said Greg Lapin, N9GL, chair of the ARRL RF Safety Committee and a member of the FCC Technological Advisory Council (TAC).

“Ham stations previously excluded from performing environmental evaluations will have until May 3, 2023, to perform these. After May 3, 2021, any new stations or those modified in a way that affects RF exposure must comply before being put into service,” Lapin said.

The December 2019 *RF Report and Order* changes the methods that many radio services use to determine and achieve compliance with FCC limits on human exposure to RF electromagnetic fields. The FCC also modified the process for determining whether a particular device or deployment is exempt from a more thorough analysis by replacing a service-specific list of transmitters, facilities, and operations for which evaluation is required with new streamlined formula-based criteria. The *R&O* also addressed how to perform evaluations where the exemption does not apply, and how to mitigate exposure.

Amateur radio licensees will have to determine whether any existing facilities previously excluded under the old rules now qualify for an exemption under the new rules. Most will, but some may not.

The ARRL Laboratory staff is available to help amateurs to make these determinations and, if needed, perform the necessary calculations to ensure their stations comply. ARRL Laboratory Manager Ed Hare, W1RFI, who helped prepare ARRL’s *RF Exposure and You* book, explained it this way. “The FCC did not change any of the underlying rules applicable to amateur station evaluations,” he said. “The sections of the book on how to perform routine station evaluations are still valid and usable, especially the many charts of common antennas at different heights.” Hare said ARRL Lab staff also would be available to help amateurs understand the rules and evaluate their stations.”

*RF Exposure and You* is [available for free download](#) from ARRL. ARRL also has an [RF Safety page](#) on its website.

The ARRL RF Safety Committee is working with the FCC to update the FCC’s aids for following human exposure rules — *OET Bulletin 65* and *OET Bulletin 65 Supplement B for Radio Amateurs*. In addition, ARRL is developing tools that all hams can use to perform exposure assessments.

## Are you ready for the new RF exposure evaluation regulations?

By Dan Romanchik, KB6NU

On Tuesday, April 27, Dan, W1DAN, ARRL Eastern Massachusetts Section Technical Coordinator, gave a Zoom presentation on the latest FCC regulations on RF exposure evaluation. These are spelled out in FCC-1926A1 (<https://www.fcc.gov/document/fcc-maintains-current-rf-exposure-safety-standards>), "Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields; Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies." The document is as long as the title might suggest—159 pages—but W1DAN boiled it down, focusing on what these changes mean for radio amateurs.

A recording of the presentation can be viewed by going to [https://drive.google.com/drive/folders/1\\_qIGZhHyMrha-axJt87Dcu0UZuJO0t8F](https://drive.google.com/drive/folders/1_qIGZhHyMrha-axJt87Dcu0UZuJO0t8F).

After explaining how RF exposure can be harmful, Dan explained how the rules are changing: The biggest change, he notes, is that amateur radio's categorical exclusion has been eliminated. What this means is that now every radio amateur will have to perform an RF exposure evaluation of their stations. This now includes mobile and portable stations, including HTs, SOTA/POTA stations, and Field Day and special event stations.

He noted that you must be able to prove that your station is safe. This includes not only performing the evaluation, but also documenting these evaluations, should this data be requested by FCC personnel.

One thing that's not changing are the maximum permissible exposure (MPE) limits. These are spelled out in FCC OET Bulletin 65 ([https://transition.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet65/oet65.pdf](https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf)), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields." The FCC published this document in August 1997, but it's still the Bible when it comes to RF exposure. If you don't have a copy, or have never taken a look at it, you really should do so.

Be careful, though, when reading it. It contains a table (Table 1 on p. 21) that contains a list of output powers at various frequencies. If your station exceeded those limits, then you were required to perform an RF evaluation. Now, however, all amateurs (and other radio services, for that matter) must perform RF exposure evaluations if their output power exceeds 1 mW. We are no longer categorically excluded from performing these evaluations.

OET Bulletin 65 goes on to give guidance on how to calculate or measure

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exposure levels. Explaining how to do this is outside the scope of this article, but again, you'll want to refer to the bulletin for more information.

Besides the elimination of the categorical exclusion for amateur radio stations, what else is new is the dates on which amateur radio stations must perform evaluations. They are:

**May 3, 2021(!)** for new and modified stations

May 3, 2023 for stations that complied under the old rules.

Having said all that, the ARRL's RF Exposure page (<http://www.arrl.org/rf-exposure>) has a lot of resources to help you understand this topic and perform your own RF exposure evaluations:

An RF-exposure FAQ (<http://www.arrl.org/files/file/Technology/RFsafetyCommittee/RFXFAQ.pdf>) to help hams understand the new rules.

"Learning to Live with RF Safety ([http://www.arrl.org/files/file/protected/Group/Members/Technology/tis/info/pdf/QST\\_Mar\\_2009\\_p70-71.pdf](http://www.arrl.org/files/file/protected/Group/Members/Technology/tis/info/pdf/QST_Mar_2009_p70-71.pdf))," QST March 2009 pp. 70-71.

RF Safety at Field Day (<http://www.arrl.org/files/file/Technology/tis/info/pdf/9906048.pdf>) QST, June 1999, pp. 48-51. A case study of Field Day with NSRC in a public park

RF Exposure Station Evaluation and Exemption Worksheets ([http://www.arrl.org/files/file/Technology/tis/info/pdf/rfex1\\_2.pdf](http://www.arrl.org/files/file/Technology/tis/info/pdf/rfex1_2.pdf))

*RF Exposure and You* (<http://www.arrl.org/files/file/Technology/RFsafetyCommittee/RF%20Exposure%20and%20You.pdf>). This 8 Mbyte PDF file contains the text of the entire book by Ed Hare, W1RFI.

Chapter 5 References (<http://www.arrl.org/files/file/Technology/tis/info/pdf/RF%20Exposure%20Chapter%205.pdf>) needed for filling out worksheet.

There are also links to FCC web pages with information on RF exposure.

I'm sure we'll all be hearing more about this in the days ahead. Hopefully, someone will come out with a simple way to do the modeling or make the calculations. As always, play safe.

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Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog ([KB6NU.Com](http://KB6NU.Com)), the "No Nonsense" amateur radio license study guides (<https://KB6NU.Com/study-guides/>), and often appears on the ICQPodcast (<https://icqpodcast.com>). When he's not RF exposure evaluations, he teaches online ham radio classes and operates CW on the low end of the HF bands.

## AARC Repeaters

### 2 Meters

145.370 (-) W8LKY  
(PL - 110.9hz)  
Echolink:

### 440 MHz

442.350 (+)  
W8LKY  
(PL - 131.8hz)

## Nets

### Tuesday

**Homeland security Net**  
7:00PM 147.51 Simplex

### Thursday

#### Ten Meters

7:30PM 28.122 MHz  
(Olivia)  
8:00PM 28.420 MHz  
(SSB)  
8:30PM 28.100 MHz  
(CW)

#### Two Meters

9:00 PM 145.37 MHz  
W8LKY (-)

## Minutes

Remember, our club minutes (with the financials redacted) can be found on our website at [w8lky.org](http://w8lky.org).

The treasurers report can be obtained by e-mailing the treasurer at [kd8mq1@gmail.com](mailto:kd8mq1@gmail.com)

## AARC Monthly VE Testing

The Alliance ARC is now doing monthly VE testing. The next session will be on

**Saturday, May 15, 2021.**

Further dates are posted on [w8lky.org](http://w8lky.org).

It will be held at the First Christian Church, 1141 W. Beech Street, in Alliance

Registration will be between 8-9AM, and testing will begin at 9 AM

The cost for testing will be \$15.00

Applicants Need to Bring the following;

- Copy of any current Amateur Radio License
- If not licensed please go to the FCC website and register for an FRN. Bring this number with you as it is needed for your application.
- Photo ID showing current address like a Driver's License
- One additional ID, like a CCW Permit, Passport or work ID
- \$15.00, Cash only and exact change is encouraged
- A calculator is optional for math problems

For any additional questions please contact VE Team Liaison

**James K. Andrews, KD8VT**  
**(330)-206-4909**

NOTE! The FCC is not yet collecting the \$35 Amateur Radio Application fee. You can learn more about this at

<http://www.arrl.org/w1aw-bulletins-archive/ARLB007/2021>

## Editors Rambling

Hi everyone,

What a month it's been. A bit over 3000 miles on the truck, and something north of 1000 contacts added to the log since last time this newsletter came out. I guess you could say it's been a busy month. On top of that, I got my 2nd shot of Moderna.

So, it's time to get back to work. According to the governor, we can congregate outdoors. So, along those lines, some of us have been talking about setting up our radios outside in the Alliance area, and invite others to come and experience the fun of operating portable. If this sounds good to you, please let me know. Your support is paramount to making this happen.

I know what you are thinking. "This sounds like Field Day". In a way, it is, but much more low key, and these impromptu activations will last a couple hours, not a full day. This will be more of a "Parks On The Air" style activation, where we'll have fun on the radio, while hunting other Hams around the country, and beyond. Keep your ears open. We'll have more to say on this soon.

Field Day is coming up on the weekend of June 26/27. Remember, the most important ingredient for any Field Day operation is YOU! Ron will no doubt have more to say on the subject in his column this month.

And that's all I have for this month.

73 DE KD8MQ

## Newsletter Information

The Zero Beat is a publication of the

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