

Q-FIVER

The Official Newsletter of the OH-KY-IN Amateur Radio Society



The President's Corner

It's Saturday afternoon, the first annual OH-KY-IN Seminar is in the record books! It was our highest-attended Seminar to date <grin>! In all seriousness it was a well-attended meeting with about 22-23 folks all told, and with four presentations given. First, a big "Thank You" to Dennis KD8ILY for arranging our location; many thanks to Dave K8WDA, Gary KB8MYC, and Brian K4BRI for their excellent, excellent presentations, and a big thank you to all who showed up and participated in the event. This was our first foray into doing a seminar, and everyone made it a success! If you missed it, all I can say is plan to attend next year!!



Brian K4BRI talking about Circuit Board Design

(Continued on page 4)

2018 Board of Directors

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OH-KY-IN Repeaters

146.670 (-) Clifton

146.625 *(-) Edgewood

146.925 *(-) Delhi

443.7625 *(+5) Clifton

A CTCSS (PL) tone of 123.0 Hz is required for access to all OH-KY-IN repeaters. All repeaters also transmit a CTCSS (PL) tone of 123.0 Hz

** Fusion Repeater*

APRS on 144.390 mHz

K8SCH-10 Edgewood WIDEn

Packet on 145.010 mHz

K8SCH-7 Digipeater

For membership information, please contact Nathan Ciufo KA3MTT, 6323 Cinnamon Ridge Dr, Burlington KY 41005, (859) 586-2435 or Email membership@ohkyin.org. Renewals of Club Memberships are due by the end of March. Permission is hereby granted to any amateur radio group to quote or reprint from this publication, if proper source credit is given, unless permission is otherwise reserved.

THE Q-FIVER is now mailed & e-mailed, it's hoped, a week before the club meeting.

Normally copy deadline is the weekend before that. Please send your submissions for THE Q-FIVER (including notice of upgrades & callsign changes) to Brian K4BRI

These may be: snail-mailed to or dropped off at 6901 Backus Drive, Alexandria KY 41001 or telephoned to (859) 635-3095 any time



Oh-Ky-In Life Members

John Phelps N8JTP

Kenneth E Wolf N8WYC

John W Hughes AI4DA

Karl R Kaucher KK4KRK

Howard Hunt NG8P

Fred Schneider K9OHE

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2018 Committee Chairs and Appointments

Newcomers/Elmers Net..... Robert Gulley AK3Q
 Technical Operations Group Eric Neiheisel, N8YC
 ARPSC Representative.....Jerry Shipp W1SCR
 Volunteer ExaminersBrian DeYoung K4BRI
 QCEN Representative Pat Maley KD8PAT
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 Digital GroupJerry Shipp W1SCR

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 Historian Dale Vanselow KC8HQ5
 Special Publications Jo Haltermon KD4PYS
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 WebMaster George Gardei N3VQW
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 Tech Talk Net MgrBruce Vanselow N8BV
 K8SCH QSL Mgr Bob Frey WA6EZV
 TV/RFI Dick Arnett WB4SUV
 HamFest Gary Coffey KB8MYC

The May Foxhunt will be an ARDF style on foot hunt, and will be on the first Saturday of May, May 5th at 12 Noon. The location will be Bicentennial park, which is a part of Mt Airy forest's McFarlan Woods—2855 Diehl Road.

May Calendar

- | | | |
|------------|----------|--|
| Tue May 1 | 7:30 PM | Club Meeting in St Bernard—Topic: ADS-B & Flight Tracking for Hams |
| Wed My 2 | 9:00 PM | Tech Talk, NCS Robert AK3Q |
| Sat May 5 | 9:00 AM | ARRL VE Exam session in St Bernard |
| | 12:00 PM | Monthly ARDF Foxhunt— Location: Bicentennial Park. Starts at 10AM |
| Sun May 6 | 6:30 PM | Newcomers/Elmers Net, 146.67,
Topic: Repeater and Non-Repeater Necessities |
| Tue May 8 | 7:00 PM | Board of Directors meeting at My Neighbor's place –3150 Harrison Ave. |
| Wed May 9 | 9:00 PM | Tech Talk, NCS Eric N8YC |
| Sat May 12 | 1:00 PM | Brunch Bunch at Price Hill Chili, 4920 Glenway Avenue |
| Sun May 13 | 6:30 PM | Newcomers/Elmers Net, 146.67,
Topic: Going Portable with Amateur Radio |
| Wed May 16 | 9:00 PM | Tech Talk, NCS Dale, KC8HQ5 |
| Sun May 20 | 6:30 PM | Newcomers/Elmers Net, 146.67,
Topic: 6 Meters "The Magic Band" |
| Wed May 23 | 9:00 PM | Tech Talk, NCS George N3VQW |
| Sun May 27 | 6:30 PM | Newcomers/Elmers Net, 146.67,
Topic: Planning for Field Day |
| Wed May 30 | 7:00 PM | Tech Talk, NCS Rick KD4PYR? |

(Continued from page 1)



Dave K8WDA leading a hands-on soldering class

April also featured Jim WB4CTX at our club meeting talking about HF DXing with a Modest Station, and the positive response was overwhelming! A bit sassy and a whole lot funny, Jim had some excellent advice for working DX stations which others might consider an "inadequate station!" Laughter and learning are always a great combination!

Coming up in May we have our own team of Brian (K4BRI) and Eric (N8YC) demonstrating Flight Tracking – you won't want to miss it!! And in June, Dave K8WDA will be sharing "Some Early History of Amateur Radio" along with our Field Day guru Eric N8YC giving us a quick overview of Field Day 2018.

As mentioned last time, planning is already underway for our annual Hamfest in September – don't wait to be asked, let Gary (KB8MYC) know you want to help! There is a lot of planning and work to making a successful hamfest, but it is also fun! The more folks who get involved the easier and more enjoyable it is for everyone.

Meanwhile Dayton Hamvention is coming up in May, and the Milford Hamfest is coming up in June. QCEN will have some tables at Dayton and have graciously offered us space for those who would like to sell some equipment, and of course, they can use some help manning the tables Friday and Saturday. There's lots of opportunities to get some new equipment or sell some of your old gear to make room for new!

See you all at the May meeting!

Cheers! Robert AK3Q

The Music of Radio: Kurzwellen and other shortwave works

By Justin Patrick Moore, KE8COY

Starting in the early 1960s Karlheinz Stockhausen composed several instrumental works which he called "process compositions". These did away with traditional stave notation and instead used symbols including plus, minus, and equal signs that indicated the successive transformations of sounds that were otherwise unspecified or unforeseeable by the composer. In this way he brings elements of improvisation into the fold of Western classical music where the strict adherence to a fixed score left little room for interpretation by musicians. The scores in his process pieces don't dictate specific notes or ways of playing but rather specify the way a sound is to be changed or imitated. Taking a cue from his studies of information theory Stockhausen created a way of writing music that is similar to computer programming. The program "determines the way information is processed while leaving the choice of information to be processed to the individual user." (Maconie 1990, 156-157)

Stockhausen's process pieces include *Plus-Minus* (1963), *Prozession* (1967), *Kurzwellen*, and *Spiral* (both 1968). Eventually they led to the text based processes of his intuitive music compositions in the cycles *Aus den sieben Tagen* (1968) and *Für kommende Zeiten* (1968–70).

Kurzwellen (Short waves), the third of the process pieces also marks the beginning of Stockhausen's magnificent voyage using shortwave receivers as a medium for musical transportation. The formal procedures in *Kurzwellen* (and the others) are fixed. Stockhausen thinks of these not as fixed in the way Beethoven's Fifth symphony is a fixed piece that will sound the same to a greater or larger degree from recording to recording or performance to performance. Only the processes themselves are fixed. These are indicated primarily by plus, minus, and equal signs and constitute the composition.

Yet the sound materials themselves, like the knobs on the tuners, are variable. The process scores can be followed and bring about very different results each time they are played and yet somehow still sound similar. The sound material coming in from the shortwave radios is unpredictable. Yet the prescribed processes themselves can be heard from one performance to another as being "the same". These developments in musical theory and practice make live performances and new recordings exciting events.

The sounds coming in from the radio are what they players use as source material for the process of transformation as indicated by the score. Each player has a radio at their station. Stockhausen writes, "An undreamed intensity of listening and of intuitive playing is reached – and shared by all co-players and listeners – through the concentration of all players on unforeseeable events coming from the realm of short-waves, in which one only very rarely knows who composed or produced them, how they came into being or from where, and in which all possible acoustic phenomena can appear."

In practice the performers search for desirable sounds on the radio. These are for the most part the more abstract and noisy sounds found in the spectrum. Then they replicate those sounds on their instruments and transform them by using variations in register, volume, duration or rhythmic density. There are additional instructions in the score for players to form synchronous duo, trio and quartet events, where players play together in tandem, or alternatively trade short events with one another.

Part of the reason Stockhausen proscribed shortwave receivers rather than just the AM and FM broadcast band receivers most often used by John Cage is that they pulled in sounds from around the world. This played into his idea of creating a kind of world music. Shortwave also has a rich variety of sounds that allows the musicians greater freedom in finding sound material transform.

He continued to use shortwave radios in the pieces *Spiral*, *Pole for 2*, and *Expo for 3*. Writing of *Spiral* the composer says, "Doesn't almost everyone own a short-wave receiver? And doesn't everyone have a voice? Wouldn't it be an artful way of life for everyone, to transform the unexpected (which one can receive on a short-wave radio) into new music - i.e. into a consciously-formed sound process which awakens all intuitive,

(Continued on page 6)

(Continued from page 5)

mental, sensitive and artistic faculties, and makes them become creative, so that this awareness and these faculties rise like a spiral?!"

Expo is kind of the penultimate of these pieces, though it shares close similarities with *Spiral* and *Pole*, differing mostly in the number of players. All can be heard as being part of the same family of process pieces using shortwave radio. *Expo* was written for Stockhausen's 1970 stay in Japan at the World Fair in Osaka ("EXPO '70"). For the Fair Stockhausen designed a large spherical auditorium that was then developed by his collaborator Fritz Bornemann. Outfitted with 50 loudspeakers the audience was literally surrounded on all sides by sound. Karlheinz was able to control the movement of the sound mix around these speakers, moving the audio vertically and horizontally. Sometimes he created rising and falling spiral motions using what was termed a "rotation mill". There were also various balcony stages and platforms as the podium that gave the works performed there further spatial dimension. For 183 his crew of twenty performed daily from 3:30 to 9pm. With breaks for individual musicians I'm guessing. The German pavilion became one of the main attractions at Expo '70.

These pieces represent a kind of music where both musicians and listeners must surrender completely to the process without worrying about the outcome. As humans this "not worrying about the outcome" of an action or a path taken can be a brutal challenge. These works embody a philosophy that has the effect of helping me to worry less about outcomes in my life. Process music as applied to my life gives me a sense of freedom from the outcome of an action. This allows me to be more present with the action itself as it happens, whether it is writing, radio, or some other activity. Listening to process music reminds me that I need to surrender to what I am doing in the moment. Surrender is difficult. Part of the joy to be found in the arts is submitting to how they grasp hold of us. Listening itself becomes a transformation.

To the amateur radio or SWLing enthusiast the sounds of *Kurzwellen* will be familiar. The static crashes and buzzes, warbling of telemetry, announcers in multiple languages and mysterious numbers stations are sweet nectars of sound for the radio hobbyist. Listening to these recordings is like drinking a fine wine. I prefer it served in a darkened room with ears open to the world.

Sources:

<http://stockhausenspace.blogspot.com/> (plus/minus series of articles)

https://en.wikipedia.org/wiki/Process_music

The works of Karlheinz Stockhausen, by Robin Maconie, 2nd edition.

EXPO für 3

Karlheinz Stockhausen

Hamilton County ARES & EmComm Notes

Justin Patrick Moore, KE8COY

Cincinnati EMA had all their bases covered for the Opening Day parade on April 2nd. HamCo ARES members staffed the ROC Radio Room to help them out. The action was about as quiet as the ball game against the Cubs. But in the end it was a win for the home team, and the amateurs who stood by in case they were needed.

The very next day was April 3rd: the 44th anniversary of the 1974 Super Outbreak of tornadoes that ravaged Saylor Park and Xenia, Ohio, among other places. This year the Miami Valley once again found itself in the red zone with a tornado warning. A cold front had blown in mixing with the warm temperatures already in the area, a recipe known to produce twisters. SkyWARN opened a net on the 146.88 machine to assist the NWS with weather-spotting. Later the NWS confirmed five tornadoes in Ohio. Some of the affected areas were a township Northeast of Beavercreek, western Xenia, and Grove City. In the case of Grove City an assessment determined that damage was caused by an F1 tornado with estimated wind speeds between 100 and 110 MPH.

The NWS in Wilmington with support from Grove City and Franklin County EMA officials surveyed the damage. A tornado initially touched down just south of Orders Road, and moved northeast, crossing Hoover Road and I-71. It also affected White Road and Stringtown Road in this area. The most significant damage along the path occurred on the west side of I-71 on Orders Road where four large utility poles were snapped at the base and fell across the street. Multiple townhomes and other structures on the west side of Hoover Road received damage, including a newly built detached garage that was completely destroyed. Several of the homes had partial uplift and removal of roofing and damage to exterior walls. Garage doors were pushed in by the winds and roofs removed as air was pushed through the top. Four more large electrical transmission poles were snapped on the west side of Hoover Road. In total 450 homes saw some form of damage. Due to the effect of the tornadoes on utilities folks in the area were without power for a period of three days –the average number of days a person should have back up supplies for in case of an emergency.

This reminds me of a great article I read this month on how preppers can eat well even in the face of a prolonged disaster. Prepper's don't survive, they thrive, by Matt Gross can be read at the following url: <https://www.tastecooking.com/preppers-dont-survive-thrive/>

The recent tornado and flooding events that have impacted our area serve as a reminder that the Midwest is not immune to the ravages of nature. Sometimes those ravages are quite severe. These events were much smaller than the 1974 Super Outbreak where 30 F4/F5 tornadoes were confirmed. Forty-four years ago those tornadoes first hit our area at the Morehead Marina, throwing and destroying numerous boats. A large floating restaurant barge was lifted, ripped from its moorings, and flipped by the tornado. What remained of it was later recovered several miles downstream. Even a house was lifted from its foundation and thrown into the Ohio River. Further away from the river proper in Saylor Park F5 intensities were still maintained as numerous homes were swept away at a hilly area near a lake. Only the bare slabs remained. My father remembers watching these twisters come into town from my grandparent's home on Delhi Pike. Damage in Delhi was rated as high as an F4. That tornado outbreak took three lives and injured over one hundred in Hamilton County, Ohio. This isn't even counting what happened to those in Xenia and other effected areas.

It is repeatedly stressed that weather-spotting is different than *stormchasing*. As ham weatherspotters our job is only to report on weather that we can observe, without endangering ourselves or those around us. Yet stormchasers do exist often putting their lives at risk for the advancement of the sciences. Tim Samaras was one of these stormchasers and an engineer who developed tools to study these phenomenon. He was killed, alongside his son, and another researcher in 2013 by a wedge tornado going 295 mph. A new biography of this man has just been published, *The Man who caught the storm* by Brantley Hargrove. It documents his life and achievements, describing his development of innovative new tools and his life-risking efforts in pursuit of scientific information. His efforts transformed the field of meteorology. Just remember in ARES we work as weather *spotters*. There is no need to go chasing after bad weather or storms. If a SkyWarn weather net is

called just report what is seen from a safe and secure locations, according to the proper criteria, and as directed by net control.

On April 7 the Ohio Section held an ARES conference. A number of members went to this. Bryan Hoffman KC8EGV reported on how moving the presentation by George, N1EZZ was. It was a talk about his recent experience assisting with communications on St. Croix island after Hurricane Irma. He ended up staying through Hurricane Maria. All the videos from the conference have been uploaded here: <http://arrl-ohio.org/SEC/sec-conf-2018.html>

Other talks included the state of Ohio's EOC, digital nets, DMR and other topics.

The regular HamCo ARES meeting was held on April 17th. One of the exciting presentations was from Joel Pranikoff W8JDP. He talked about making the truly staggering assets of the Emergency Support Services radio club/non-profit corp available for the use of HamCo ARES. These include the 145.190 repeater on the Star 64 tower, a communications vehicle, and whole slew of W8ESS repeaters.

Until next month: keep your batteries charged & aerials up!

Minutes of April 3rd, 2018 Member Meeting

The meeting was called to order at 7:30 PM by Robert AK3Q with the Pledge of Allegiance.

Guests: 2

New Licenses or Upgrades: None

Self Introductions: 44

Health and Welfare

- Ted Morris NC8V has been sick and now needs a walker to get around.
- Gordon "Gordy" Brainard, Jr. KI8I is now SK.

Brag Sessions: Jerry W1SCR is getting a harmonic (not a harmonica!) from his son.

Prior Meeting Minutes: Accepted with amendments (yours truly was dyslexic on some callsigns!).

Membership:

- 119
- Steve Weeks AA8SW is our newest Life Member. Congratulations!

Treasurer: Brian K4BRI submitted March's report. The report was filed, subject to audit.

Silent Keys

- Bruce N8BV reported OH-KY-IN Past President Sam Grider KJ8K passed away on March 4th.

(Continued from page 8)

- Bruce also reported that SK John Bennet WD8NMV's tower has been taken down and items from the tower such as antennas and rotor are for sale as part of the estate sale. Contact Bruce via email at n8bv@juno.com for details.

Tech Operations

- Eric N8YC reported that there is not much new externally, but internally they have been training repeater control operators and now have a Gang of 8.
- The question was raised regarding the time slowly skewing on the 670 repeater. This requires a firmware upgrade on the controller, which is not yet available, but will be soon.
- Another question was raised regarding error messages on the 670 repeater. This is a setting and they just need to be turned off and Brian will take care of that soon.

Classes and Exams

- Mike KD8ZLB reported there are three students in the Extra class and they have completed six sessions so far.
- Mike reported the Tech and General classes started on Monday, April 2nd with 21 students studying for their Tech license and five for their General license.
- Mike also reported that license examinations will be held on Saturday, May 5th at 9:00 AM. There is a \$15 fee for ARRL supplies.
- Contact Mike at kd8zlb@gmail.com for more information.

Fox Hunts and ARDF

- Dick WB4SUV reported a successful 80m ARDF style hunt last month. The transmitters got out of sync, adding to the difficulty. Brian finished first in about 37 minutes with Bob WA6EZV close behind. Due to a miscommunication, Bill KA8TWB showed up late and with 2m equipment, but was able to participate and successfully found one fox.
- Dick also reported that the net fox hunt will be mobile on Saturday, April 14th at 10:00 AM with setup at 9:30 AM at Mount Storm park in Clifton.

Nets

- Bruce reported that the numbers for the Tech Talk net have been fluctuating lately, most likely due to the weather getting nicer. Robert will be net control for the upcoming net this next Wednesday.

(Continued on page 10)

(Continued from page 9)

- Robert reported that there was no Newcomer's and Elmer's net this past Sunday due to the Easter holiday.

Website: Rocky KE8DZS reported that the website is still there and he is behind schedule on updates, but to please continue sending him new items as he is in the process of updating it and will get to them. He is currently doing a redesign and is looking for suggestions and he should have something new before next month's meeting. Robert has seen some of the redesign and it looks good.

Digital Group

- Jerry W1SCR reported they met last month and got one new user on WinLink and one new user on DMR.
- The group meets on the 4th Tuesday of the month next door in St Bernard's Centennial Hall, 110 Washington Ave., St Bernard, OH 45217 at 7:00. The format is very open with many topics being discussed, so stop by and bring your questions!

QCEN: Pat KD8PAT reported meetings are back to the old time on Fridays. The next meeting will be on Friday, April 20th starting at 7:30, but stop by beforehand starting at 6:00 to play with the radios. Meetings are at the American Red Cross, 2111 Dana Avenue, Cincinnati, OH 45207.

ARES: Nothing reported.

Old Business

- Membership renewals. Gary KB8MYC mailed out renewal notices and we have since received 10 renewals.
- Audit Committee. Michael KD8SOH audited the treasurer's reports on Sunday, March 18th at Brian's house along with David NU8H and Mike KG4DSG. There were no issues with everything in order. Kudos to Brian! There will a report forthcoming.
- OH-KY-IN will be hosting a seminar on a variety of topics dealing with amateur radio and electronics on Saturday, April 21st from 9:00 to 12:00 at Cincinnati Public Schools 2355 Iowa Avenue, Cincinnati, OH 45206. This seminar is open to all including non-hams. There will be **free** coffee and doughnuts! Grab a flyer and post them.
- The OH-KY-IN Hamfest will be held on Saturday, September 22nd at Aiken High School 5641 Belmont Avenue, Cincinnati, OH 45224. Tickets and tables are both \$5.

(Continued on page 11)

(Continued from page 10)

New Business

- Bob reported that CQ and the ARRL have come to an agreement and you can now use Logbook of the World for CQ's WAZ (Worked All Zones) award.
- Ted Morris NC8V is stepping down as OH-KY-IN's Public Information Officer. In his place, Justin Moore KE8COY will be stepping into the role.
- Laughery Valley ARC is holding their hamfest this coming Saturday, April 7th at the Hidden Valley Pool parking lot, 20660 Lakeview Drive, Lawrenceburg, IN 47025.
- Laughery Valley ARC has also added a PL access tone of 143 to their 147.285 repeater.
- The Flying Pig Marathon is on Sunday, May 6th. With this being the 20th anniversary, there are many festivities all through the weekend with many of them are already at capacity. They are in need of volunteer ham operators. Sign up to be a Grunt on their volunteer website under the Queen City Emergency Net group: <https://volunteer.getmeregistered.com/events/register.php?id=359&group=3111>. The group password is "ham".
- The first Chinese space station, Tiangong-1, finally crashed into the Pacific Ocean off the coast of Chile.
- After a call from Robert in the Q-Fiver, it looks like OH-KY-IN's other repeaters are receiving traffic. Please use them! Each repeater even sounds different. Robert is looking for ideas on boosting their usage including hosting nets. Some net ideas are Digital, DXing, SSTV, social and even shifting our existing standing nets to alternate repeaters mid-net to test our competency. Continue thinking of new ideas and please volunteer to host a net.
- Bruce reported that the next Brunch Bunch will be held on Saturday, April 14th at 1:00 at Sunnyside Grill 7995 Wesselman Road, Cleves, OH 45002. Note this is known as Lower Wesselman as Wesselman meets Harrison Avenue at two locations and this one is further down Harrison, near where I-74 and I-275 merge.

The meeting recessed for about 5 minutes and resumed at 8:10 PM.

Program: Jim Hicks WB4CTX presented on Tips for Working DX with a Modest Station. Great presentation. Thanks, Jim!

Split the Pot: The pot held \$200 with \$100 going to one of our guests, Brad Hast.

The meeting was adjourned at 9:10 PM.

Respectfully submitted, Cesi DiBenedetto KD8OOB, Secretary.

QRP? QRP!

And Here's Why

The Q-code QRP means “low output power” or “lower your output power.” There are many reasons why operators may need to lower their output power, but operating QRP or at low power is a facet of amateur radio where the operator intentionally and purposefully attempts to make long distance contacts on low power, typically 5 watts or less. Why would anyone intentionally and purposefully work at such low output power? Because it's a challenging, rewarding and fun!

While there is no set definition of QRP, most QRP operators consider 5 watts RF output QRP. Some people further define it as 5 watts for CW and 10 watts for SSB. Using your 5 watt HT to hit a local repeater is not considered QRP operating even though it is 5 watts; it's usually not long distance. Some operators go to the extreme and operate QRPp, i.e. extremely low power, where their RF output is less than 1 watt!

Reason to Operate QRP

When reasonably priced technology is out there to operate at high output power, i.e. QRO, and the FCC allows us to pump out 1,500 watts PEP on most of our band allocations, why would anyone operate at such low power without being required to?

Remember, FCC Rule Part 97 states, “Run only the power necessary to maintain the desired communications.” Some people consider this a dare. How low can I lower my RF output and still maintain the desired communications? How far can my signal be heard at low power? It's a thrill when you hear your callsign coming back at you from halfway around the world after calling CQ with only 5 watts. With reverse beacon nets, it's easier than ever to find out how far your small signal can be heard and you would be surprised how far 5 watts can take you.

Safety can be another reason to operate QRP. 5 watts RF is much safer than 1,000 watts or even 100 watts. An RF safety assessment may warrant operating at low power. RF burns can be can be painful and even deadly. You may also need to keep your power low due to proximity to sensitive equipment. For example, living in or near the US National Radio Quiet Zone may force you to operate QRP most of the time.

Many types of remote activations may require you to haul your equipment long distances and over rough terrain in order to operate. Activating a remote grid square, a state or national park, or a peak or summit means bringing in radio, batteries, antenna and logging apparatus. Keeping the radio small and light is helpful. And QRP draws less from your batteries, meaning you can operate longer. A lighter antenna also means lower power; you're really not going to want to drag your stacked beam antenna out on a hike and you don't want to pump too much RF power through a thin wire antenna.

(Continued on page 13)

(Continued from page 12)

In the same vein, many hams like to mix hobbies. Radio operating can enhance other activities like hiking, camping, bike riding, canoeing and kayaking. It's rewarding to make the QSO while sitting in a kayak in the middle of a lake or sitting next to campfire under the stars. All of these activities again require light, portable radios, antennas and batteries.

There are several contests out there that have QRP endorsements and there are many contests that are exclusively for QRP like the Flying Pigs Run for the Bacon. There is even an activity called QRP Fox Hunting where QRP "Foxes" are hunted by QRP "Hounds" throughout the winter and summer hunting seasons on 80m, 40m and 20m. You need to operate QRP to participate in these contests or fox hunts and garnering a QRP endorsement in a big contest can be a rewarding challenge.

Many amateur operators are makers and like to build things. Many ham projects deal with building transmitters or transceivers, most of which are low power devices. Once you build it, you will want to operate it and you will find yourself operating QRP.

QRP can also be very useful for emergency communications. During an emergency situation, your battery or generator is your lifeblood. When you run out of gas or run out of battery, you're dead on the air. By keeping your power low, you can extend the life of your power source. And by operating QRP, you are developing a skillset that can come in handy during a long running emergency situation.

How It Works

One of the keys to understanding QRP is understanding that the difference between 5 watts and 100 watts is 13 dB. This 13 dB roughly translates to 2 S-units on the RF meter. If you receive a signal report of 59 at 100 watts, that can translate into a signal report of 57 at only 5 watts.

Like any other facet of amateur radio, QRP requires knowledge and skill. Understanding propagation and which bands to operate on is useful for any type of long distance communication, regardless of operating power, but it definitely comes into play when operating QRP. Knowing your equipment and understanding feedlines and antenna matching helps you push every last bit of 5 watts out of the antenna instead of heating up the feedline or reflecting it back at yourself. Understanding the antenna itself will help you get the signal launching in the right direction and not warming up the worms or burning the clouds. Understanding modulation helps get the most punch out of your signal: the narrower the modulation bandwidth the less spread out the power and this usually translates to longer distances. There's a reason why many QRP operators use CW: it can be much more effective than SSB. All of these skills will make you a better operator regardless of power, but they are essential to being a QRP operator.

How to Get Started

There are many modern-day rigs allow you to lower the RF output. Just adjust the level down to 10 watts SSB or 5 watts CW or digital and see what you can do. With the digital modes like FT8, PSK31 or WSPR, you can see who is seeing your signal through sites like PSK Reporter (<https://pskreporter.info/pskmap.html>) or WSPRnet (<http://wsprnet.org/drupal/wsprnet/map>).

(Continued on page 14)

(Continued from page 13)

There are several commercial QRP or backpacker rigs out on the market. The Yaesu FT-817nd is a popular rig and my favorite. And Yaesu just refreshed the line with the newly released FT-818. Elecraft makes the very popular KX2 and KX3 rigs, which have an extensive list of options and accessories. Icom offers the IC-703 Plus, Ten-Tec has the 506 Rebel CW transceiver and QRPver offers the reasonably priced QRPVer-1. Note that this is not an inclusive list as the market for commercial QRP rigs is pretty extensive with both new and retired offerings.

If you are on a tight budget or a do-it-yourselfer, there are plenty of commercial QRP radio kits out on the market. While pricey, the Elecraft KX2 and KX3 rigs are offered in kit form. I have never built one, but from what I understand you need to be experienced at building kits as they are complex and not for the faint of heart! SoftRock offers the RXTX Ensemble Transceiver kit, but beware that it does have surface-mount technology that you will need to solder into place. On the extremely cheap and easy side of things, there is the Pixie series of CW transceivers. They come in kit form or pre-assembled, with or without a case, multiple bands and plenty of mods. But again beware: each kit is designed for a specific band, they are crystal driven without a VFO, meaning you are locked into the frequency of the crystal, requiring a mod to “bend the rock” and vary the frequency. Additionally, many of the kits come with crystals in the Amateur Extra part of the bands. The Four State QRP Group offers several transceiver kits including the extremely tiny NMOS Cricket CW transceivers for 30m and 80m and the K1SWL Hilltopper 20 CW transceiver for 20m.

Help and Community

There are plenty of clubs out there that cater to the QRP community.

The QRP Amateur Radio Club International is an active, international club for low power enthusiasts. They offer a high quality quarterly magazine with lots of great tips and projects. They also have several contests throughout the year and their own reward program like Worked all States, DX, County Hunter and Worked all Continents that are awarded exclusively for operating at low power. They also have the Four Days In May event in the Greater Dayton area that runs concurrent with the Dayton Hamvention.

<http://www.qrparci.org/>

The Flying Pigs QRP Club is a virtual club that has a monthly contest, the Run for the Bacon, the never ending Worked All Pigs contest, a twice weekly net on 40m and an email reflector. Note that they operate not only at low power but use CW. The club started up in 1999 here in Cincinnati, hence the Flying Pig name and references.

<http://www.fpqrp.org/>

The Four State QRP Group is an informal group originating in the Arkansas, Oklahoma, Missouri and Kansas area. They offer awards, an email reflector, a popular convention known as OzarkCon in April in Branson MO and plenty of great, easy to build kits to help you operate QRP.

<http://www.4sqrp.com/>

(Continued on page 15)

(Continued from page 14)

The North American QRP CW Club is an open club to those interested in QRP and CW. They offer contests, awards, a newsletter, several regional CW nets on many bands and resources to help you become a better CW operator.

<http://www.naqcc.info/>

Next time you operate, try lowering your output and operate QRP. You may be surprised who can hear you!

73!

Cesi DiBenedetto KD8O0B

Technical Operations Group

April Report

To All,

April was a challenging month for Tech Ops! As most of you are aware there was a significant number of issues with our flagship .67 repeater. We put a brand new controller into service with a upgraded firmware not knowing of several command changes. When we downloaded our saved configuration file with all our local settings, things did not mix well and we ended up with new problems. Then, the new version also introduced new problems that affected not only our repeaters, but many others and reflected with many conversations on the repeater controller message boards. Most of these problems i.e. slow clock, error messages, ID message cutoffs etc have since been corrected. THEN, we upgraded to the latest version hoping a permanent fix to these issues was at hand, BUT somehow another bug got into the works causing a tone broadcast for a few days associated with tail messages. I thank Brian, K4BRI for spending a lot of his personal time resolving these issues and conversing with the controller manufacturer. I think we have won the battle... and maybe just mopping up a little.

On another note, we are making great strides in developing our control operators. The goal of having a trained group of 8 is well on the way with monthly training as necessary. Standardization of all equipment with the same software version on all Oh-Ky-In ARS repeaters will greatly simplify that training.

Finally, as another one of our goals takes shape, all technical material, operating guides, and manuals are now going into a central accessible on-line resource so any one of us can access and share information regarding the maintenance and operation of our repeater system.

Have a wonderful May!

Eric Neiheisel, N8YC
Oh-Ky-In ARS
Tech Ops

ARRL Field Day

Greetings!

The OH-KY-IN Amateur Radio Society will proudly be conducting its annual ARRL Field Day event on Saturday and Sunday, 23 and 24 June 2018 at our usual Mitchell Memorial Forest location. Setup will be on Friday, 22 Jun starting at 2pm (24 hours before actual operation). Please come on down to the park for a weekend full of amateur radio at its best! Field Day is a yearly operating event that starts at 2PM on Saturday and concludes at 2PM on Sunday.

As Field Day Chair I am honored that our Club conducts THE best Field Day operation in the area. With the hard work of so many of you throughout the years, planning each year's event gets a little easier every time. That's due to the fact that we've gotten so good at this that there is very little we need, or would like to change. So this year, we will once again go forward with our same planning as the last few years, but of course, it is an open discussion. Suggestions and comments are always welcome.

We will again be operating five stations:

SSB Station 1: 10,15,20,40,80M
Digital/SSB Station 2: 10,15,20,40,80M
CW Station, 20 and 40M
6 Meter/VHF/UHF Station
GOTA (Get on the Air Station)

We will also have demonstrations for our bonus points in Solar, Satellite/Digital/APRS and National Traffic System operations among others. If there is any amateur radio technology you would like to bring out to demo, this is the perfect place!

Field Day is a great annual event geared to veteran and beginner operators alike, and of all ages. Anyone, regardless of their skills are free to sign up for any station and there is always someone available to help you along. The GOTA station is a great place for those interested in amateur radio (but have not yet been licensed) to get introduced to the fun of what most often becomes a lifelong hobby!

Come out and join us for a great time of fun, food and camaraderie. The annual Field Day Picnic will start at 6pm on Saturday with burgers, metts, brats, dogs, and snacks. Please bring a side dish or a desert to help build the feast. Bring your friends and family out to see what's going on and to join us for the fun! Also, please feel free to pitch a tent Friday and/or Saturday night and stay the whole weekend if you like...a good number of us have been doing it for years. There is nothing better than the sound of QSOs through the night having a duel with the crickets!

I will have signup sheets available for all stations at the June Membership Meeting. If you would like to sign up and can't make the meeting, just contact me and I'll get you on the roster.

Visit the ARRL's website for a wealth of information on Field Day at: <http://www.arrl.org/field-day>

I will be sending out more info soon as we continue to develop this year's event.

Thanks and see you soon!

Eric, N8YC

Foxhunts and ARDF

The April mobile foxhunt consisted of 4 teams hunting for Phil KG8AP. Bob, WA6EZV, Dick & Janie WB4SUV & KJ4VCW, Bill KA8TWB, and first time hunters Christian W4ALF, & Jim KM4TXR. Heavy rain was predicted to begin at 8AM but with luck held off until close to the end of the hunt. Signals from the start at Mt Storm Park appeared to be straight towards Winton Woods Park. Bob took the straight route up Winton Road and Dick & Janie took 75 N to CC Hwy to Winton Rd winding up one block behind Bob on Winton Rd. Signals continued to point North towards Winton Woods and then began pointing East. Phil was found in a small parking lot in Sharon Woods Park. All hunters finished the hunt. 1st Bob, 2nd Dick & Janie, 3rd Bill, 4th Christian & Jim. The May hunt is scheduled to be an on foot 80 meter ARDF style hunt. Equipment will be available for anyone that wants to give it a try. Location will be BiCentennial Park, a part of My Airy Forest.

Team	Name	Call	Tot. Mileage	Tot. Time	Place
1	Bob	WA6EZV	18.9	40 min	1
2	Dick Janie	WB4SUV KJ4VCW	30.4	68 min	2
3	Bill	KA8TWB	30	79 min	3
4	Christian Bravo Jim Zdunic	W4ALF KM4TXR	31(+)	89 min	4

Mobile ARDF

4/14/2018

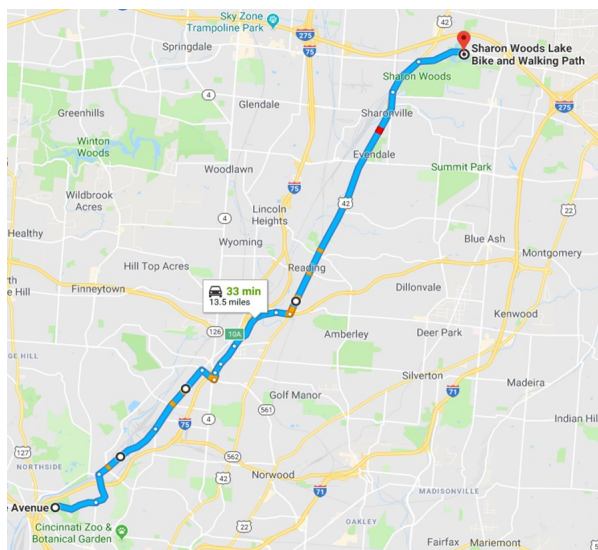
Beacon: 146.565 MHz, FM simplex

50W; Vertical 7/8 wave double center fed antenna (5.2 dBi gain)

Location: Sharon Woods Park

Sharonville, OH 45241

39.285028, -84.385768



Brunch Bunch

The next Brunch Bunch will be held Saturday, May 12th, at 1pm. The location for May is Price Hill Chili located at 4920 Glenway Avenue in Price Hill. Price Hill Chili is just north of the intersection of Glenway Avenue, Cleves Warsaw Pike and Guerley Road. The Brunch Bunch has visited this restaurant many times and we always get a good turn out when we visit there.

Price Hill Chili is a family owned and operated restaurant on the western side of Cincinnati. It is a popular and well known establishment to anyone who was raised or resides on the west side. It's fame and popularity has also spread well beyond the boundaries of the west side and it has become a Cincinnati legend.

You can find a map as well as the menu at:
www.pricehillchili.com

Remember that the Brunch Bunch always meets the second Saturday of every month at 1pm at a location to be announced each month. If you can't join us this month, maybe you'll be available to join us in the months ahead.

I'm always looking for suggestions on what restaurant you think might be a good place for the Brunch Bunch to visit soon.

73,Bruce, N8BV

May 2018 DX Spots de KA3MTT

Sun	Mon	Tue	Wed	Thu	Fri	Sat
A52 - Bhutan thru 5-5 	6Y5IDX - Jamaica Thru 5-7 	1	2 JD1BLY - Ogasawara Thru 5-4 ----- C8,C9 - Mozambique Thru 5-15 ----- KH6 - Hawaii thru 6-1	3	4 3F6IC - Panama thru 5-6 	5 9H3JI - Malta thru 5-12 
6 OH0KA - Aland Is thru 5-11 	7	8 E51KMR - S Cook Is Thru 5-11 ----- P4 - Aruba thru 5-13	9	10	11 3B9RUN - Rodrigues Isl thru 5-16 ----- VK9LI - Lord Howe I Thru 5-18	12 HB0 - Liechtenstein Thru 5-13 
13	14	15	16	17	18	19
20	21	22	23	24 9H3SV - Malta thru 5-31 	25	26 JW8DW - Svalbard Thru 5-29 
27	28	29	30	31		

OH-KY-IN Amateur Radio Society

Regular monthly meetings are held the first Tuesday of each month at 7:30PM local time at the St Bernard Recreation Hall, 120 Washington Avenue (corner Washington & Tower Aves) in St Bernard, just east of Vine St. Please come in the doors at street level, facing the high school. Visitors are ALWAYS welcome!

The next meeting of the Oh-Ky-In Amateur Radio Society will be Tuesday, May 1st at 7:30 PM

Program:

ADS-B and Flight Tracking for Hams

**Eric N8YC
&
Brian K4BRI**

OH-KY-IN Amateur Radio Society

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