

# Q-FIVER

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



## A Good Exam Day

***Robert Gulley K4PKM***

Earlier today our club held an Exam session as follow-up for the licensing classes held this spring. This is one of many such exams in which I have participated, and each one is special to me.

Sometimes they are special because I have participated in teaching sections of a licensing class, other times because I was watching high school students take their "Final Exam" for a class which taught Amateur Radio as part of the curriculum. Still others were special because I was a relatively new amateur but had the honor of grading tests where new amateurs were born.

I can only speak for myself, but I suspect other VEs and teachers feel a similar anticipation as tests are given and results are tallied. The numbers are not important as statistics, but rather as a measure of accomplishment, excitement, and reward for the hard work the students have invested in themselves.

Today all twelve folks who took the exams passed their original tests! A few brave souls took the next level exam to get an idea what that level of testing looked like, and one gentleman became a General license holder before he even had his Tech license! Bravo! He simply said, "I've been studying." Indeed! He passed both Tech and General in the same day, and that is always an extra bit of excitement!

There were almost as many VEs at the exam session as there were students, and this underscores something special about amateur radio folks. All of us came out because we are excited about the hobby, and excited about helping others to share in that excitement by becoming hams themselves, or by moving up to the next level of license.

I want to say, "Well done!" to all the students who took their exam today, and "Thank You!" to all the VEs, teachers, and organizers who make this possible. For Brian (K4BRI) and Mike (KD8ZLB) there is a lot of work which goes on in the background, and your labors are appreciated!

I know of no other hobby where so much volunteer work goes into helping others. It's both a fine tradition and something which makes amateur radio stand out.

Make sure to congratulate those hams who advanced their license class, and make sure to welcome the new hams when you hear them on the air. The learning process continues for them, and our Elmering roles continue as we help them get the most out of their new hobby! Each of us likely remembers those early days being nervous to get on the air; let's make these early contacts a pleasurable memory for our new hams!

## 2019 Board of Directors

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### *Past President*

Robert Gulley AK3Q ..... (859) 638-0374 ..... ak3q@ak3q.com



### **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](mailto: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 & call sign 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

Roger Higley W8CRK

Dan Curtin KF4AV

Steve Weeks AA8SW

Kelly Hoffman, K8KAH

Cindy Shipp, KB8WEI

Jerry Shipp, W1SCR

## 2019 Committee Chairs and Appointments

Newcomers/Elmers Net.....Robert Gulley AK3Q  
 Technical Operations Group .....Gary Coffey KB8MYC  
 ARPSC Representative .....Jerry Shipp W1SCR  
 Volunteer Examiners .....Brian DeYoung K4BRI  
 QCEN Representative.....Pat Maley KD8PAT  
 Membership .....Nathan Ciufo KA3MTT  
 Fundraising .....Bruce Vanselow N8BV  
 Education .....Michael Niehaus KD8ZLB  
 Repeater Control Ops Mgr.....Bruce Vanselow N8BV  
 PIO .....Justin Moore KE8COY  
 Librarian .....Justin Moore KE8COY  
 Digital Group .....Jerry Shipp W1SCR

Q-Fiver Editor .....Brian DeYoung, K4BRI  
 Field Day .....Eric Neiheisel N8YC  
 Historian .....Dale Vanselow KC8HQS  
 Special Publications .....Jo Haltermon KD4PYS  
 Fox Hunters .....Dick Arnett WB4SUV  
 Equipment Mgr .....  
 WebMaster .....George Gardei N3VQW  
 Silent Key .....Bryan Hoffman KC8EGV  
 Tech Talk Net Mgr .....Bruce Vanselow N8BV  
 K8SCH QSL Mgr .....Bob Frey WA6EZV  
 TV/RFI .....Dick Arnett WB4SUV  
 HamFest .....Gary Coffey KB8MYC

### FIELD DAY

Setup begins Friday June 21 at 2PM

Continuous operation begins Saturday June 22 at 2PM

Tear down begins and operation halts Sunday June 23 at 2PM

## June 2019 Calendar

Sun Jun 2	7:00 PM	Newcomers/Elmers Net, 146.67, Topic: <a href="#">Field Day</a>
Tue Jun 4	7:30 PM	Club Meeting in St Bernard— <a href="#">Field Day</a> —Eric N8YC
Wed Jun 5	9:00 PM	Tech Talk, NCS Robert AK3Q
Sat Jun 8	10:00 AM	Monthly Mobile Foxhunt—Starting from Mt Storm park in Clifton—Setup starts about 9:30
	1:00 PM	Brunch Bunch at <b>Cabana on the River, 7445 Forbes Road</b>
Sun Jun 9	7:00 PM	Newcomers/Elmers Net, 146.67, Topic: <a href="#">Learning Online</a>
Tue Jun 11	7:00 PM	Board of Directors meeting at Westwood United Methodist Church –3460 Epworth Ave
Wed Jun 12	9:00 PM	Tech Talk, NCS Mike N8MRS
Thu Jun 13	6:00 PM	ARDF style on-foot Foxhunt—80 meters—Location to be determined
Sun Jun 16	7:00 PM	Newcomers/Elmers Net, 146.67, Topic: <a href="#">Fun with SDR</a>
Wed Jun 18	9:00 PM	Tech Talk, NCS Dale, KC8HQS
Fri Jun 21	2:00 PM	Field Day Setup Begins
Sat Jun 22	2:00 PM	Field Day Begins
	6:00 PM	Picnic Dinner at Field Day
Sun Jun 23	2:00 PM	Field Day Teardown begins
	7:00 PM	Newcomers/Elmers Net, 146.67, Topic: <a href="#">Field Day Follow-up/Q&amp;A</a>
Wed Jun 26	9:00 PM	Tech Talk, NCS George N3VQW
Sun Jun 30	7:00 PM	Newcomers/Elmers Net, 146.67, Topic: <a href="#">The QSL: Old and New</a>

## Steve Weeks - AA8SW

Steve became interested in Amateur Radio when he was a teen, but Morse Code didn't interest him at the time. Once he realized Morse Code was no longer a requirement, he progressed to Extra Class very quickly.

**Equipment/antennas currently in use at Steven's station:**  
Yaesu FT-dx5000

Yaesu FT-7900 and  
Yaesu handheld

microHAM  
microKEYER digital  
Interface

Random Wire  
antenna in trees for  
HF use

Comet vertical on  
porch for 6 meters  
and above

**Favorite Modes:**  
FT8/4, SSB and RTTY

### Steve's Amateur Radio Activities

Steve enjoys contesting, and was a Top-100 finisher in the 2018 ARRL International Grid Chase, taking spot 72 in the WORLD, with over 13,000 contacts!

He enjoys attending ham-fests, with last year's OH-KY-IN Hamfest being his first.

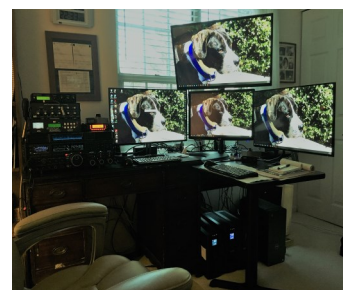
The recent SSTV activity from the ISS has piqued Steve's interest in SSTV and he's also interested in learning CW to go after ARRL's Triple Play Award. He also enjoys using SDR's for multiple applications.

Steve enjoys DX'ing and has 147 DXCC entities with his random length wire antenna!

He holds DXCC, WAS, VUCC, and WAC and has over 17,000 total contacts

with close to half of all US counties. In fact...there are a few stations Steve has contacted on ELEVEN bands each - from 160 to 6, including 60 meters!

Before Amateur Radio, Steve worked as a professional programmer before graduate school, and has always had a love for computers. His other main hobby is golf, and he's ready to get back to the links following a shoulder injury.



**Above is Steve's operating position at AA8SW**



**Above - Steve, AA8SW**

### Steve's Advice for those interested in Amateur Radio or newly licensed

"Go for the General License ASAP. It's an amazingly good deal, providing a vast majority of Extra Class privileges with a far less difficult exam. After you gain the General Class License, get on the air and participate in contests. It's daunting for most of us to just call someone at random on HF, but during contests the other hams WANT to hear from you. After the brief contest exchange, you're finished, with no need to think of anything clever to chat about. Contests are a great way to gain operating experience."

## Minutes of May 2019 Membership Meeting

### **Guests:**

Mike N8TTR

Don, not licensed yet but is currently taking OHKYIN class.

### **New licenses/upgrades**

None

41 in attendance

### **Health and Welfare:**

Bob WA6EZV - took care of hernia, still recovering, Might be able to beat Tom on foxhunt this month...

### **Brag:**

Bob WA6EZV - South Korea FT8 QSL Card

Eric N8YC – got a Kenwood TH-D74

George: Purchased new Tektronics Quad Channel Oscilloscope at a steep discount.

Joshua KW8D – First time with Flying Pig, Confirmed 100 DXCC entities.

Bob - CQ magazine mentioned that OH-KY-IN has planted the most foxhunt transmitters at Hamvention

### **Business meeting:**

The April minutes were handed out earlier; Corrections needed were reported

Motion to accept the minutes after corrections, approved

### **Membership report**

128 members (at least 130 + 2 at meeting)

### **Treasurer's report:**

The treasurers report was passed out and was accepted and filed for audit.

### **Silent Key:**

Richard Burdick, K8WWA passed on April 26. He was a past president of GCARA (Greater Cincinnati Amateur Radio Association)

### **Tech Committee:**

Brian K4BRI had nothing new to report. Cable and wires had been replaced on the .67 repeater site.

### **Classes and Exams:**

Next week is the final week for classes. The exam will be on May 25<sup>th</sup>.

### **Foxhunts/ARDF:**

Phil was up near Harrison and Rybolt. It was a very close race. This month's foxhunt will be on foot 80 meters at French Park, starting at 6:00 pm, Thursday May 23<sup>rd</sup>. There will be a foxhunt at Hamvention starting at 5:00 pm on Saturday

**Tech Talk:**

Bruce needs net control operator for the May 29<sup>th</sup> Tech Talk net.

**Newcomers and Elmer's:**

Robert AK3Q was not present.

**Winlink Wednesday:**

Send ED Frambes K8EAF an email over Winlink!

**Digital Group:**

Jerry W1SCR reported that Ed did a sidebar on Winlink. Robert (AK3QW) did an in-depth review on the setup of FT-8

**Website:**

no changes; same problems.

**QCEN:**

Next meeting is this Friday (May 10) at the Red Cross. Presentation topic is on Oscilloscopes

**ARES:**

Bryan Hofmann KC8EGV thanked everyone for the help on Flying Pig. The next meeting subject is programming radios.

**Brunch Bunch:**

This Saturday at 1:00 pm at the Sky Galley Restaurant at Lunken Airport.

**Upcoming Events:**

Field Day - June 22-23<sup>rd</sup>

Preparations are well under way and we are planning a 2 mast 2 beam setup, 1 for sideband and one from digital to give them more flexibility. The next OH-KY-IN membership meeting will be about Field Day program. We have been at Mitchell Memorial Forest for 34 years. Chef John needs a lot of volunteers to help setup and learn how to do the food service for field day. This year we will have more defined teams for setup: The number one priority is the mast setup.

Space Day @ Cincinnati Museum Center – July 20<sup>th</sup>

Apollo 11 60-year anniversary, Museum Center requested OH-KY-IN's presence. Need someone to lead.

1940's Weekend @ Cincinnati Museum Center – Aug 10<sup>th</sup>

Ohio QSO Party (Join OK-KY-IN\QCEN) at the Red Cross Building, Dana Ave on Aug 24<sup>th</sup>

CF Bike Ride – Sept 14th

OH-KY-IN Hamfest – A go for Sept 21st. At Aiken HS - Looking for someone to partner with Gary. At last board meeting it was decided that if no one steps up; next year's event is not for sure; might not have it.

## Old business:

Maker Faire – Had a good time, some challenges - RF noise level in the area made demos difficult.

NVIS Day - 18 people showed up. It was an overcast day. 3 antennas were setup. Mike KD8ZLB had the most contacts. George (N3VQW) and Robert Blocker (N8JVM) also had antennas setup. Robert won for most contacts on the non-inverted V antennas.

## New Business:

Beer booth at Red White & Blue Ash - Bruce (N8BV) is begging for people to help sell beer and loading beer from cooler. He needs a minimum of 7 people. He has currently has 3.

Bob WA6EZV - paint can dummy load/wattmeter kits. Asked if anyone was interested in getting together for a group build.

Next meeting topic is on Field Day

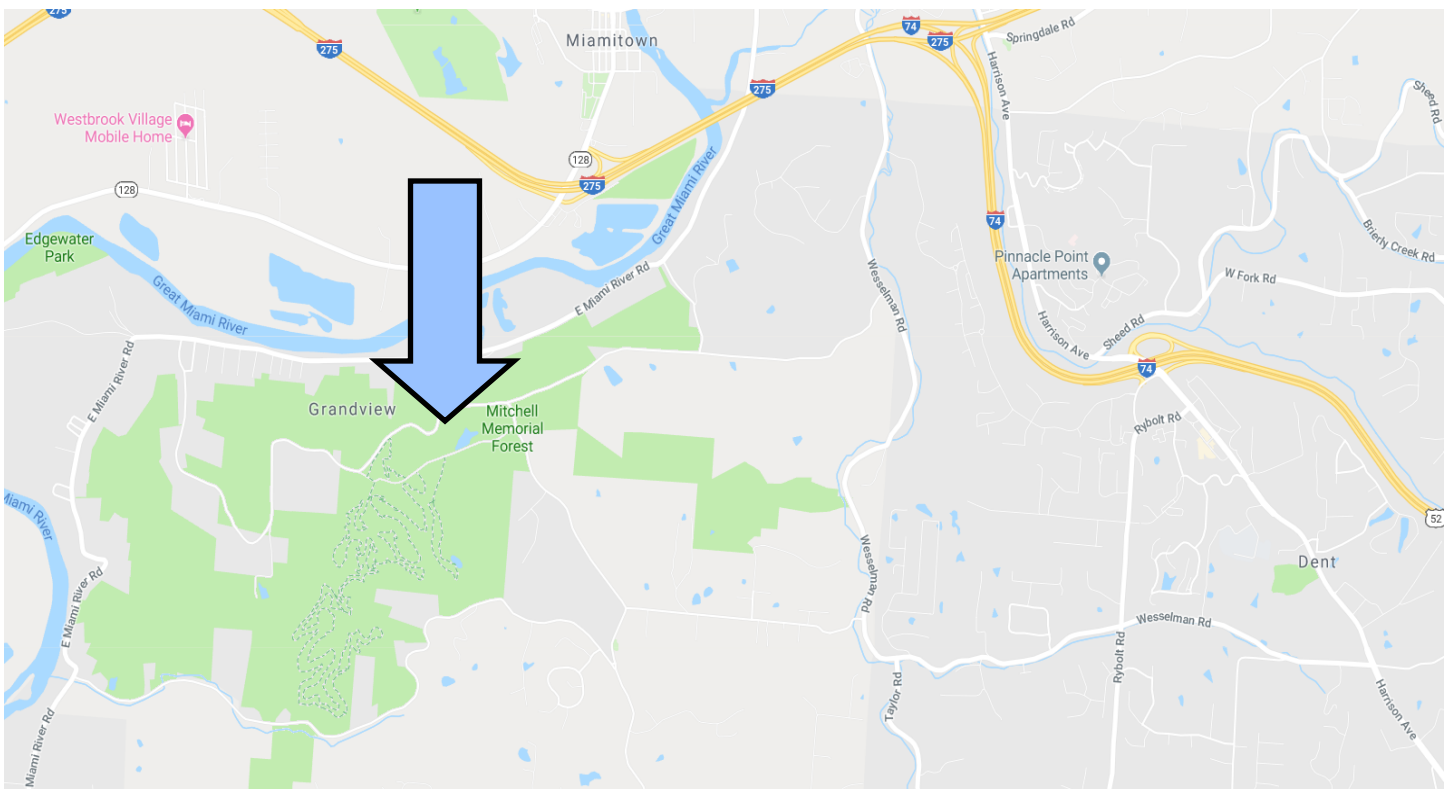
Break at 8:15

George Gardei (N3VQW) did a presentation on Oscilloscopes

Split the pot: Brian K4BRI won \$59.

Meeting adjourned at 9:07ET

## Field Day Location Map 2019





## The Radiophonic Laboratory: The Strange World of Fred Judd G2BCX

By Justin Patrick Moore, KE8COY

Even in the strange and eccentric world of the ham radio operator, Fred Judd G2BCX (1914–1992) was something of an outlier and maverick. Fred designed two well-known antennas, the Slim Jim and the ZL Special. Both of these are now antenna standards. Fred was also an advocate of early British electronic music, inventing or modifying the tools he needed to make this adventurous music along the way. G2BCX was the quintessential tinkerer; a man who loved audio, radio, and the new possibilities for music being opened up by the careful application of capacitors.

As a radar technician in the armed forces during WWII Fred had the opportunity to develop his electrical aptitude and became a full blown engineer. After the war he found a spot working for the Kelvin Hughes company where he researched and developed marine radar devices. To this day Kelvin Hughes continues to create navigation and surveillance systems.

Fred was a man of strong ambition, and the day job in electronics wasn't enough to keep him satisfied. As part of his side hustle he wrote articles for hobbyist magazines on radio and the new remote control models coming to market. The first of his 11 published books hit the shelves in 1954. When Amateur Tape Recording (ATR) magazine was launched in 1959 he joined the staff as technical editor and wrote on all kinds of topics connected to tape, electronics and hi-fi.

The slim jim antenna for which G2BCX remains famous among hams is itself a variation on the J-Pole. The J-pole is at the time of this writing a 110 year old design, first invented by Hans Beggerow in 1909 for use on Zeppelin airships. In that regard, the J-Pole, commonly made of copper, can also be considered a steampunk antenna. Trailing behind the airship, the J-Pole was made of a single element, one half wavelength long radiator with a quarter wave parallel tuning stub for the feedline. By 1936 this design had been refined into the J configuration and given the J Antenna name in 1943, now just called a J Pole.

Fred introduced his J-pole variant in 1978. He derived the name from its slim profile and the J type matching stub (**J** Integrated **M**atching). It has similar performance and characteristics to a simple or folded Half-wave antenna and identical to the traditional J-pole construction. Judd found the Slim Jim produces a lower takeoff angle and better electrical performance than a 5/8 wavelength ground plane antenna. Slim Jim antennas made from ladder transmission line use the existing parallel conductor for the folded dipole element.

The ZL special antenna came from another variant Judd made, this time on the 2-element horizontal phased array created by George Prichard ZL3MH –hence the name ZL Special in tribute to Prichard's work. L.B. Cebik, W4RNL has written up a detailed analysis of this design at: <http://www.antentop.org/w4rnl.001/mu5a.html>.

It can be presumed that when Fred wasn't at work, or on the air as a ham, he was engaged in another aspect of his electronics hobby: making circuits sing. He also wrote one of the first how-to books in the world for making electronic music in 1961, titled *Electronic Music and Musique Concrete*. It included circuit diagrams alongside practical do-it-yourself tips. (A copy of this tome is available from the Public Library of Cincinnati along with his *Radio and Electronic Hobbies* book.)

Around this time he also promoted the creation of electronic music via lectures and demonstrations at amateur tape recording clubs all around Britain. As an editor and writer for the Amateur Tape Recording magazine he had access to these clubs and lots of street cred within them. Fred started putting out 7" records of electronic music which were made available through the magazine. Judd was also the editor of Practical Electronics magazine. Chris Carter was an avid read-





er of both of these magazines and spent time building a lot of the circuits Judd published. Chris Carter went on to be a founding member of Throbbing Gristle, the first industrial music band. Chris continued to innovate in electronic music with his wife Cosey Fan Tutti as Chris & Cosey and latter Carter Tutti.

As any sci-fi movie or old-time radio show buff will know, one of the things electronic music is perfect for is making sound effects, and Fred became adept at making his own. Have you ever flipped around on the tube and come across the strange sci-fi puppet show *Space Patrol*? Broadcast in 1963 on the ITV network it was the first on British television show to have a composed electronic music soundtrack running throughout the whole series. Fred made those sounds himself using the techniques of tape manipulation, loops and tone generators in his home studio in London.

The Castle record label and its sister label Contrast issued a range of sound effects discs that he made in his studio, including 3 discs of electronic music. These tracks were later issued by library label Studio G, who specialized in providing stock music and sounds, on the *Electronic Age* album.

Fred also prototyped and built his own synthesizer. This simple voltage controlled, keyboard-operated unit was used to generate, shape and switch electronic sounds. The feat was small but impressive as it predated the Synket, Moog and Buchla synths.

Fred was also interested in the visualization of electronic sounds. One can imagine he knew his way around an oscilloscope and other test equipment. His tinkering in this area led to his Chromasonics system. By running a pulse generator and amplifier into a modified black and white tv that had a high speed color scanning wheel placed in front of the screen Judd was able to make trippy abstract patterns that moved in accordance with the sound input from oscillators or tape recordings. At the 1963 Audio Fair in London he demonstrated Chromasonics with much acclaim, but interest from electronics firm Stuzzi never made it to commercial development.

From the late 1970s Judd continued to operate as a ham from his home in Cantley, Norfolk. Towards the end of his life, he built several detailed reconstructions of early electrical devices including a Wimshurst machine and Edison phonograph. He was honoured by the University of East Anglia for constructing a working replica of apparatus used by Heinrich Hertz, but it seems that none of this equipment, the Chromasonics apparatus or his experimental music-making machinery has survived. He became a silent key in 1992.

In 2010 all of his remaining original quarter inch tapes have been cataloged and deposited with the British Library Sound Archive. In 2011 Ian Helliwell made a documentary on Judd called Practical Electronics A retrospective album gathering together as much of his experimental music as can be located, titled *Electronics Without Tears* was released by the Public Information label. It also contained an official biography of Judd written by Helliwell. It is available from their bandcamp page at: <https://publicinformation.bandcamp.com/album/electronics-without-tears>.

Here is a short bibliography of books by Fred C. Judd:

Radio control for model ships, boats and aircraft. London: Data publications, 1954.

Electronic music and musique concrète. London : N. Spearman, 1961.

Tape recording for everyone. Blackie, 1962.

Radio and electronic hobbies. London: Museum Press, 1963.

Circuits for audio and tape recording. Haymarket Press, 1966.

Electronics in music. London: Spearman, 1972.

Amateur radio. Newnes Technical Books, 1980.

Two-metre antenna handbook. Newnes Technical, 1980.

CB radio. Newnes Technical, 1982.

Radio wave propagation : (HF bands). London : Heinemann, 1987.

[https://en.wikipedia.org/wiki/Fred\\_Judd](https://en.wikipedia.org/wiki/Fred_Judd)

[https://en.wikipedia.org/wiki/J-pole\\_antenna](https://en.wikipedia.org/wiki/J-pole_antenna)

<https://thequietus.com/articles/12386-f-c-judd-interpretations-interview-holly-herndon-perc-public-information>

Electronics Without Tears, Public Information, Biography by Ian Helliwell

## Brunch Bunch

**The next Brunch Bunch will be held Saturday, June 8th, at 1pm. The location for June is [Cabana on the River](#). Cabana on the River is located at 7445 Forbes Road, off River Road (US 50) in Saylor Park, 45233.**

**"If you enjoy eating outdoors in a casual, fun, friendly atmosphere, The Cabana on the River is the place for you. Once a local secret, it has become a westside hotspot.**

**Our menu includes a wide variety of mouth-watering appetizers, salads, sandwiches and dinner favorites. Our full service bar features frozen concoctions, numerous beers, and an assortment of specialty drinks, including our famous *long island iced tea*. Come enjoy our stunning view of the river along with a refreshing beverage while your food is made to order."**

**For a look at the menu as well as a map:**

**[www.cabanaontheriver.com](http://www.cabanaontheriver.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



Sun	Mon	Tue	Wed	Thu	Fri	Sat
<p>4L9S - Georgia thru 6-2</p> 	<p>E31A - Eritrea thru 6-3</p> 	<p>LX - Luxembourg Thru 6-1</p> 	<p>SV5 - Dodecanese Thru 6-14</p>			<p>1 SV9 - Crete thru 6-15 ----- 5W0H - Samoa Thru 6-10 ----- XV9DXB - Vietnam Thru 6-15</p>
2	3	4	5	<p>6 S9A - Sao Tome &amp; Principe thru 6-18</p> 	<p>7 9G5GS - Ghana thru 7-2</p> 	8
<p>9 PJ2 - Curacao thru 6-16</p> 	10	11	<p>12 JW - Svalbard thru 6-16</p> 	<p>13 PJ8SK - Sint Maarten Thru 6-15</p> 	<p>14 TO1T - Guadeloupe Thru 6-25</p> 	<p>15 FS - St Martin thru 6-18</p> 
16	<p>17 V6K - Micronesia thru 6-24</p>	18	19	20	21	22
<p>23 ZF2CJ - Cayman Is Thru 6-25</p> 	24	<p>25 PJ5 - Saba &amp; St Eustatius thru 7-2</p>	<p>26 6Y3Y - Jamaica thru 6-28</p> 	27	28	29
30						

#### 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, June 4th at 7:30 PM

## Program:

# Field Day By Eric, N8YC

#### OH-KY-IN Amateur Radio Society

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PLEASE  
PLACE  
STAMP  
HERE

