CQ Chatter

APRIL 2014 VOLUME B14 • ISSUE 2

WOOD COUNTY AMATEUR RADIO CLUB

April Meeting to Include Program on Large Antique Machinery

The April business meeting will be followed by an audio-visual program on large antique machinery. The program will be presented by Bob Willman, WB8NQW. As you may know Bob has long had an interest in older steam and petroleum driven machines, particularly as they were used in industry and farming. The presentation promises to be quite interesting--be sure to plan to attend. ■

Wood County ARES Net

The Wood County ARES holds a check-in net on the third Tuesday of each Month at 7:00 pm. The ARES repeater, KB8BTI, operates on a frequency of 146.79 MHz with a PL of 103.5 Hz. ARES is the main amateur emergency response organization in the County. If you are an ARES member or would like to become one, stop by and check in. ■

Exam Session Held

On Saturday, March 1st, the Club sponsored an ARRL VE exam session at the Sheriff's Office. There were four candidates, three of whom were successful, with 2 Technician and 1 Extra Class licenses earned. Congratulations to Dale Klofta (Extra), J. Michael Newman (Tech), and Stephen Shaffer (Tech). The VEs present included Jeff-K8JTK, Linda-N1LB and Bob-N1RB. Thanks to all who participated. ■

President Hospitalized

Al Murray, WB8ABY, President of WCARC, was hospitalized at St. Luke's at the beginning of March. It has been determined that he is suffering from a chronic illness and so has been moved to a long-term care facility. His current address is:

Hillsdale County Medical Care Facility
140 W. Mechanic Rd.
Hillsdale, MI 49242

I'm sure Al would be cheered up if you dropped him a line. ■

Net Check Ins

Feb 25 Traffic: 0

KD8NJW (NC)
K8BBK
KD8RNO
WB8ABY
WD8LEI
WB8NQW
K8OVO
N1RB
KG8FH
WD8JWJ (10)

Mar 4 Traffic: 0

N1RB (NC)
K8BBK
K8OVO
WD8LEI/P
KD8NJW
KD8RNO
WB8NQW
KD8UHO
KD8FRL
KC8EKT
N8YAE (11)

Mar 11 Traffic: 0

K8OVO (NC)
K8BBK
WD8JWJ
WB8NQW
KD8DWU
KD8NKW
WD8ICP
KD8RNO
N8RAC
NM8W
N8YAE (11)

BRAIN TEASERS

1. At what frequencies does the human body absorb rf energy at a maximum rate?

a.) the hf (3 to 30 MHz) range

b.) the vhf (30 to 300 MHz) range

c.) the uhf (300 MHz to 3 GHz) range

d.) the shf (3 to 30 GHz) range

2. What is one advantage of using a random-wire antenna?

a.) it is more efficient than any other kind of antenna

b.) it will keep rf energy out of your station

c.) it doesn't need an antenna matching network

d.) it is a multi band antenna

3. if propagation changes during your contact and you notice increasing interference from other activity on the same frequency what should you do?

a.) tell the interfering stations to change frequency since you were there first

b.) report the interference to your local Amateur Auxiliary Coordinator

c.) turn on your amplifier to overcome the interference

d.) move your contact to another frequency

April Contests

The contest lineup for the month of April is given below. Please note that the WARC bands (60, 30, 17 and 12 m) are never open to contesting.

Apr 4-5	*1400 to 0200 Z*	80 m to 10 m
Mississippi QSO Party		**all modes**
Apr 5-6	*1400 to 0200; 1400 to 1800 Z*	160 m to 10 m
Missouri QSO Party		**all modes**
Apr 5-6	*1500 to 1500 Z*	160 m to 10 m
SP (Poland) DX 'test		**all modes**
Apr 5-6	*1800 to 0600 Z*	160 m to 10 m
Montana QSO Party		**all modes**
Apr 12-13	*0700 to 1300 Z*	160 m to 10 m
Japan Int'l DX 'test		**CW**
Apr 12-13	*1400 to 0200 Z*	160 m to 10 m
New Mexico QSO Party		**all modes**
Apr 12-13	*1800 to 0359; 1400 to 2359 Z*	160 m to 10 m
Georgia QSO Party		**all modes**
Apr 19-20	*0600 to 0559 Z*	80 m to 10 m
Worked All Provinces (China)		**all modes**
Apr 19-20	*1600 to 0400 Z*	80 m to 10 m
Michigan QSO Party		**all modes**
Apr 19-20	*1800 to 1800 Z*	160 m to 10 m
Nebraska QSO Party		**all modes**
Apr 19-20	*1800 to 1800 Z*	160 m to 10 m
North & South Dakota QSO Parties		**all modes**
Apr 19-20	*1800 to 0500; 1200 to 1800 Z*	160 m to 10 m
Ontario QSO Party		**all modes**

April Contests-continued

Apr 19-20	*2100 to 0500; 0900 to 1700 Z*	160 m to 10 m
YU (Serbia) DX 'test		**CW**
Apr 20	*1800 to 2359 Z*	80 m to 10 m
ARRL Rookie Roundup		**SSB**
Apr 26-27	*1200 to 1200 Z*	80 m to 10 m
SP (Poland) RTTY 'test		**RTTY**
Apr 26-27	*1300 to 1259 Z*	160 m to 10 m
Helvetia (Swiss) 'test		**all modes**
Apr 26-27	*1600 to 0159; 1200 to 2159*	40 m to 10 m
Florida QSO Party		**all modes**

April Hamfests

Apr 12 **Milford ARC Hamfest** Milford High School, Highland, MI. Contact Rose Mary, KC8NQJ, (810) 632-5174.
e-mail: **w8ydk@qsl.net**
web: **http://www.qsl.net/w8ydk**

Apr 12 **Cuyahoga Falls ARC** Emidio & Sons Party Center, Cuyahoga Falls, OH. Contact Ted, W8TTS, (234) 206-0270.
e-mail: **hamfest2014@cfarc.org**
web: **http://www.cfarc.org/hamfest2014.php**

DON'T FORGET!

10 meter informal net meets Sunday

@ 2030 EST/EDST on 28.335 MHz

WCARC Weekly Net

Tuesdays at 2130 EDST/

2030 EST (0130 Z)

147.18 MHz 67 Hz PL

Net Control Roster

Mar 25	KD8NJW
Apr 1	N1RB
Apr 8	K8OVO
Apr 15	WB8NQW
Apr 22	KD8NJW
Apr 29	N1RB
May 6	K8OVO

NEXT MEETING

BUSINESS MEETING

Monday, April 14th

TIME: 7:30pm/7:00 EB

PLACE:

Sheriff's Training Room

E. Gypsy Lane &

S. Dunbridge Rd.

Bowling Green, OH

Dongle Bits

*Over the next few issues, CQ Chatter will feature a series of articles by Jeff, K8JTK, on some of the new digital equipment and other gadgetry that are available for amateur use. As well as being an life member of WCARC, Jeff (see bio on p.6) is currently also an active member of the Lake Erie Amateur Radio Association in Cleveland. This series of articles also appears in their club newsletter, "The Spirit of '76 and '88'"**--editor***

I first heard about the Raspberry Pi about a year and a half ago on a podcast I watch called Hak5 in episode 1117. The founder created these small, cheap computers to promote computer science skills in schools. I liked the idea because students would be using technology standards like the ARM processor, HDMI, and Linux. ARM processors are used in many embedded systems because of its system-on-a-chip architecture. It may include the CPU, video, audio, memory, and input/output interfaces on a single chip. ARM processors are used in just about every smartphone and tablet.

continued---on p. 7

Net Check Ins
continued

Mar 18 Traffic: 0

WB8NQW (NC)
K8BBK
N1RB
KD8RNO
K8OVO
KD8VWU
KD8UHO
KD8WSM
N8YAE (9)

Mar 25 Traffic: 0

KD8NJW (NC)
WD8LEI
N1RB
K8BBK
WD8JWJ
WB8NQW
KD8VWU
N8YAE
KD8RNO (9)

Brain Teaser answers: 1-b, 2-d, 3-d

Wonder Where that Public Service Station Is Located?

contributed by Chuck-WD8ICP

Ever listen to the scanner and hear police calls and wonder where they are calling from? I listen and do wonder, so the following list has been provided by the Haskins Village Police Department. The radio frequency I am listening to is analog on 155.070 MHz. The Departments normally only use numerical identification and not the town name. I used to listen to BG police, but no longer since they employ the digital scheme.

617 ---- Bloomdale
629 ---- Bradner
688 ---- Haskins
(where I work part time)
719 ---- Luckey
759 ---- N. Baltimore
779 ---- Pemberville
829 ---- Risingsun
858 ---- Wayne
297 ---- Wood County
game warden
W350 --- Liquor Control
Pr-100 -- Wood County Park Rangers

■

Bio of K8JTK

Interested in computers from an early age (my guess is 8). Coursework in high school was geared toward computer applications and programming.

Attended Bowling Green State University but graduated from Cleveland State University with a degree in IST (Information Services & Technology). IST is a business degree focusing on IT and business management. Last spring graduated with an MBA (Master of Business Administration) also from CSU.

Licensed Amateur Radio operator since July of 1999 (shortly after freshman year of high school) after becoming interested by watching my dad, N8ETP. Use computers in Ham Radio whenever I can: from websites to D-STAR to streaming audio on RadioReference. Currently work at The Sherwin-Williams Company as an Analyst/Programmer for all stores in US & Canada.

dongle---from p. 5

Two current popular micro boards are the Arduino Uno and Raspberry Pi. Galileo is a recent Arduino clone from Intel using their architecture. Devices like these are innovations coming out of a prolific DIY, maker/hacker, and education communities. Just to point out, "hacker" in the sense that hams were considered the first hackers: modifiers and builders. Not the people that steal your credit card data.

This overview will focus on the Raspberry Pi. I see more projects using it and I chose it because of my familiarity with Linux. The Raspberry Pi Foundation describes the device as "*…a credit-card sized computer that plugs into your TV and a keyboard. It is a capable little computer which can be used in electronics projects, and for many of the things that your desktop PC does, like spreadsheets, word-processing and games. It also plays high-definition video. We want to see it being used by kids all over the world to learn programming.*"

source: http://www.raspberrypi.org/faqs#introWhatIs

The "Pi" comes in 2 versions, revision A & B. Rev. A sold for about $25 and had fewer components. Rev. B is about $35 and comes fully assembled. For simplicity, I will talk about rev. B as it is the current standard. It's a great choice for all kinds of projects due to the price point. If you're doing a project and blow up your Pi, it's not going to break the bank replacing it compared a desktop. The specs are:

- Weight of 1.6oz.
- 512 MB shared RAM.
- Video input connector for the optional Raspberry Pi camera.
- Video output over RCA or HDMI.
- Audio out over HDMI or 3.5mm headphone jack.
- SD card storage.
- 2 USB ports.
- 1 microUSB for power.
- 10/100 Ethernet.
- GPIO header (General purpose in/out).

source: http://en.wikipedia.org/wiki/Raspberry_Pi

On the software side, the Raspberry PI can run various distributions of Linux. A distribution is the kernel operating system distributed with different tools and programs. Weezy Raspbian is the standard distribution. Project authors may further customize a distribution or make one of their own. As an example, the Occidentalis distribution has modules for Pulse Width Modulation (PWM) and servos already loaded.

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dongle---from p. 7

Though the Arduino and Raspberry Pi are similar devices, they are very different. The Arduino boots its firmware which allows access to all features over the USB port. An application can be loaded or have it run an instruction set when it boots. It is very simplistic in that it can read sensor data, process data, and produce output. All of this functionality must be programmed into this micro-*controller*.

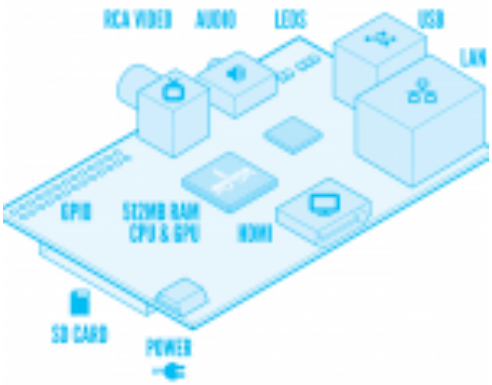
raspberry pi board

The Raspberry Pi can run a full operating system with internet browsing, word processing, games; making it a micro-*computer*. The Pi does not have a Real Time Clock (RTC). The time is expected to be set via the Internet. Development and hacking of the Pi is typically software based, but it can do functions via the GPIO pins. It is a better choice for embedded systems and projects that require interactivity or greater processing power. A new project or other operating system can be loaded by changing SD cards.

sources:
http://codeduino.com/information-and-news/hardware/arduino-vs-raspberry-pi/
http://www.makeuseof.com/tag/arduino-vs-raspberry-pi-which-is-the-mini-computer-for-you/

A common issue with the Pi is that it can be "touchy." Problems are usually related to peripheral incompatibilities and lack of current. The Pi should have at least a 1A power supply. If more than two USB ports are needed, use a powered USB hub. When purchasing the Pi and associated hardware, my strong recommendation is to check reviews, the verified components list, or use AdaFruit. Everything on that page will work with the Pi. There are great DIY projects and tutorials on AdaFruit. I have been telling people Google (or Bing, you know, whichever) "Raspberry Pi [your hobby]" or poke around project sites for ideas. You're bound to find something interesting!

raspberry pi connections



The coming articles in this series will touch on some Raspberry Pi projects and cover other computer related projects. ■

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