

## **REPEATERS**

**W8BAP/R** 146.850 - 600K

**W8BAP/R** 146.925 -600K

**W8BAP/R** 444.425 + 5M Wide area Network

**KA8WWI/R** **53.230 – 1M**

**W8BAP-1 Digi** **144.390**

## **NETS**

**SVARC** 146.850 Mondays & Thur. @8:30pm

**OSSBN** **3.972.5** @ 10:30am, 4:15pm, 6:45pm

**COTN** **+147.24** @7:15pm Daily

**SSTV** **-146.850** Monthly, 1st Monday 1700 hr

**SSTV** **-146.925** Sunday night @ 7:00 P.M.

**SSTV** **-145.490** Monthly, 1st Sunday 1900 hr

**Ohio Severe Weather Network**

**-146.760** or **-146.925** When Needed

## **SVARC NET CONTROLLERS**

Mike Matheuws KC8WIW

Marv K8KX

Jim KC8TYS

## **SVARC OFFICERS**

**President:** Jim Snodgrass KC8TYS

**Vice-president:** Mike Matheuws KC8WIW

**Secretary:** Jim Boyce KD8BWV

**Treasurer:** Jim Anzelmo WB8NNJ

**Trustee:** Steve Newland N8TUW

**Trustee:** Shawn Coppel KD8FJH

**Trustee:** Baratt AB8NL

## **MEMBERSHIP** **INFORMATION**

Jim Anzelmo WB8NNJ

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# Scioto Valley Amateur Radio Club

Nov. 2009 Volume 55, Issue 10

Jim Boyce

604 W. 5<sup>th</sup> St.

Chillicothe, Ohio 45601

## **SVARC Monthly Gatherings**

Regular Meeting 3rd Thursday  
of the month:

**Thursday November 19, 2009**

Elmer's/Social Night Whenever +

**Thursday December 3, 2009**

**SCIOTO VALLEY AMATEUR RADIO CLUB**  
**MEMBERSHIP MEETING MINUTES**  
**October 15, 2009**

Meeting called to order at 7:45 PM., by President Jim Snodgrass with the pledge of allegiance.  
The following members/guests were present.

N8SIZ Jim-	AB8IT Scottie-
KC8TYS Jim-	KD8BWV Jim-
AB8NL Baratt-	K8CLJ Dick-
KD8KBW John-	K8KX Marv-
AA8YN Dick-	KC8WIW Mike-

**Previous Meeting Minutes:** The minutes were available and a motion was made and passed to dispense with the reading of the minutes. The minutes were approved as written.

**Treasures Report:** There was no report.

**Health and Welfare reports:** No report.

**Repeater Report:**

Repeater	Comments/ Status
925	Working well. The tones still need to be installed.
850	There have been issues. The repeater went down and the backup is online. It has been up and then down.
440	Repeater at clubhouse is OK
6 Meter	Working fine
Digi 144.390	Working fine

**Old Business:**

1. No change. Jim S continues to work on the 501.3C paper work. He expects to have an appointment with the lawyer soon.
2. The special event was completed. There were not too many contacts. QSL cards will be mailed out when printed. It was suggested that additional cards be printed for use as a club card..
3. A cleaning and painting “party” was tentatively scheduled for November 7 from 9:00 to 11:00 am. This will include power washing the building with painting to follow later.
4. The Fox hunt has been postponed..
5. The 10 meter net is working but there have been very few local check-ins. As a reminder the net is Wednesday 2200 hr. (28.417)

**New Business:**

1. N8SIZ Jim is getting new lighting for the kitchen donated to the club.
2. Jim KC8TYS is working on getting some furniture donated to the club.
3. Marv is getting fruitcakes for a fund raiser this year. Last year this made \$187 for the club, mostly due to Marv’s efforts.
4. Next year we need to have a fish fry as there are expenses coming up, including termiteng the building.
5. Jim KC8TYS indicated that he will take the lead in doing a raffle for Christmas prize to be selected by Jim.

The 50/50 Drawing was won by KC8WIW Mike and donated back to the club.

Motion to adjourn at 8:45pm

# SVARC

## Newsletter for November 2009

Well here we are again with this month's newsletter and just about 6 weeks to Christmas, to say nothing of merely days until Thanksgiving. A couple of thing to note. In this months QST the results for Field Day were listed and we were 4<sup>th</sup> in the 4E group. I thought that was really great for a long party and poor band conditions. More fun that points. Thanks to Jim WB8NNJ for compiling the logs and sending them in.

Several months ago I mentioned the Ham Info tool bar that can be downloaded. I thought is was a pretty cool tool. Last month I received an email from the creator of the toolbar in the UK to ask permission to quote the Newsletter on the Web Page. Some news travels far and fast.

The clubhouse looks great and work is planned yet this fall to make it look even better. Thanks are in order to all who made the anniversary special event a success and especially to Jim N8SIZ, Shawn KD8FJH, Barret AB8NL, and Tim N8ZOM.

.....  
There was a power washing party on Saturday 11/14. We worked or watched folks work (I was a watcher) and got both ends and the top section of the building power washed and scraped. More scheduled days to follow. Jim S reported to much time at a desk to be power washing and I thought he was afraid of heights.  
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From Tim

From the last Newsletter but worth repeating the links

Pictures:

<http://tinyurl.com/ylxwvxj>

SVARC discussion Board:

<http://www.runboard.com/bsvarc2>

SVARC Web page:

<http://www.qsl.net/w8bap>

73'

Tim N8ZOM  
.....

Jesse provided this link to a n interesting and very encouraging article about ham radio. I have seen this mentioned in several other articles on the web but I did not have a link until now. Enjoy and thanks.

[http://www.computerworld.com/s/article/9139771/Want\\_to\\_bone\\_up\\_on\\_wireless\\_tech\\_Try\\_ham\\_radio?taxonomyId=15&pageNumber=4](http://www.computerworld.com/s/article/9139771/Want_to_bone_up_on_wireless_tech_Try_ham_radio?taxonomyId=15&pageNumber=4)  
.....

## A reminder about safe job planning and practices

### **PALM BAY, Fla. — Police say a mother, father and 15-year-old son were electrocuted while putting up a ham radio antenna in their Palm Bay home.**

The victims were not identified Tuesday morning.

Authorities say rescue crews responded to a 911 call about the electrocution Monday evening when they found the three on the ground not breathing.

Authorities say the family was attempting to raise the antenna when they lost control of the pole and it struck an overhead power line. The impact sent 13,000 volts of electricity through the pole the three were holding.

The woman was pronounced dead at the scene. The father and son were taken to a hospital where they were pronounced dead.

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Marv has secured a date for the 2010 fish fry. Mark you calendars now because in addition to being a good time with friends, the funds, money, cash, and revenue is needed. The date is **May 21, 2010**

.....

Here is another article on one of the modes in Ham Radio. If you have not tried it give it a look and some thought

## **THE QST ARTICLE**

**PSK31** was the brainchild of [Peter Martinez, G3PLX](#). If the call sign seems familiar to some of you, you might recall Peter as the father of AMTOR. Up until relatively recently, PSK31 was the favorite of a small cadre of experimenters who used DSP development kits to put the mode on the air. That was all well and good, but it kept PSK31 in the shadowy corners of our hobby where few knew it existed. Peter blew the doors wide open by creating a *Windows* version of PSK31 that did all of its DSP magic using ordinary 16-bit PC sound cards.

Not content with creating PSK31 for *Windows*, Peter placed it on the Web for free distribution to the global ham community. Talk about blasphemy! This meant that any ordinary ham could download the software and become active on PSK31 almost immediately.

In an article that appeared in *RadCom*, the journal of the Radio Society of Great Britain, Peter explained why he developed PSK31. Simply put, he wanted to create a mode that was as easy to use as RTTY, yet much more robust in terms of weak-signal performance. Another criteria was bandwidth. The HF digital subbands are narrow and tend to become crowded in a hurry (particularly during contests). Peter wanted to design a mode that would do all of its tricks within a very narrow bandwidth.

### **So What is PSK31?**

First, let's dissect the name. The "PSK" stands for Phase Shift Keying, the modulation method that is used to generate the signal; "31" is the bit rate. Technically speaking, the bit rate is really 31.25, but "PSK31.25" isn't nearly as catchy.

Think of Morse code for a moment. It is a simple binary code expressed by short signal *pulses (dits)* and longer signal pulses (*dahs*). By combining strings of dits and dahs, we can communicate the entire English alphabet along with numbers and punctuation. Morse uses gaps of specific lengths to separate individual characters and words. Even beginners quickly learn to recognize these gaps—they don't need special signals to tell them that one character or word has ended and another is about to begin.

When it comes to RTTY we're still dealing with binary data (dits and dahs, if you will), but instead of on/off keying, we send the information by shifting frequencies. This is known as Frequency Shift Keying or *FSK*. One frequency represents a *mark (1)* and another represents a *space (0)*. If you put enough mark and space signals together in proper order according to the RTTY code, you can send letters, numbers and a limited amount of punctuation.

The RTTY code shuffles various combinations of five bits to represent each character. For example, the letter A is expressed as 00011. To separate the individual characters RTTY must also add "start" and "stop" pulses.

For PSK31 Peter devised a new code that combines the best of RTTY and Morse. He christened his creation the *Varicode* because a varying number of bits are used for each character. Building on the example of Morse, Peter allocated the shorter codes to the letters that appeared most often in standard English text. The idea was to send the least number of bits possible during a given transmission. For example:

E is a very popular letter on the English alphabet hit parade, so it gets a Varicode of 11. Z sees relatively little use, so its Varicode becomes 111010101.

As with RTTY, however, we still need a way to signal the gaps between characters. The Varicode does this by using "00" to represent a gap. The Varicode is carefully structured so that two zeros never appear together in any of the combinations of 1s and 0s that make up the characters.

But how would the average ham generate a PSK31 signal and transmit Varicode over the airwaves? Peter's answer was to use the DSP capabilities of the common computer sound card to create an audio signal that shifted its phase 180° in sync with the 31.25 bit-per-second data stream. In Peter's scheme, a 0 bit in the data stream generates an audio phase shift, but a 1 does not. The technique of using phase shifts (and the lack thereof) to represent binary data is known as Binary Phase-Shift Keying, or *BPSK*. If you apply a BPSK audio signal to an SSB transceiver, you end up with BPSK modulated RF. (If you want the gory details, read the PSK31 software Help files.) At this data rate the resulting PSK31 RF signal is only 31.25 Hz wide, which is actually narrower than the average CW signal!

Concentrating your RF into a narrow bandwidth does wonders for reception, as any CW operator will tell you. But when you're trying to receive a BPSK-modulated signal it is easier to recognize the phase transitions—even when they are deep in the noise—if your computer knows when to expect them. To accomplish this, the receiving station must synchronize with the transmitting station. Once they are in sync, the software at the receiving station "knows" when to look for data in the receiver's audio output. Every PSK31 transmission begins with a short "idle" string of 0s. This allows the receive software to get into sync right away. Thanks to the structure of the Varicode, however, the phase transitions are also mathematically predictable, so much so that the PSK31 software can quickly synchronize itself when you tune in during the middle of a transmission, or after you momentarily lose the signal.

The combination of narrow bandwidth, an efficient DSP algorithm and synchronized sampling creates a mode that can be received at very low signal levels. PSK31 rivals the weak-signal performance of CW and it is a vast improvement over RTTY, as I discovered first hand.

Its terrific performance notwithstanding, PSK31 will not always provide 100% copy; it is as vulnerable to interference as any digital mode. And there are times, during a geomagnetic storm, for example, when ionospheric propagation will exhibit poor phase stability. (When you are trying to receive a narrow-bandwidth, phase-shifting signal, phase stability is very important.) This effect is often confined to the polar regions and it shows up as very rapid flutter, which is deadly to PSK31. The good news is that these events are usually short-lived.

## **What Do You Need to Get Started?**

The first step is to jump onto the Web and download the latest version of PSK31 from <http://www.qsl.net/wm2u/psk31.html> (This is a different link than what was referenced in the article. This link has a more recent release. ed.)

Make sure you download the latest version that's compatible with all sound card equipped PCs running Windows 95 and 98. Once you have it safely tucked away on your hard drive, install the software and read the Help files.

There is lots more on the web. I have done this with no interface by holding the mike next to the computer speaker and the headphone jack connected to the computer mike. (not the greatest but...)

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This is the area of the newsletter that I normally include Hamfest and Operating activities. I encourage you to look at the ARRL web sit for activities happing in the near future. Some item of interest include Centennial Celebration of the Radio Club of America, First Pilgrim Landing at Plymouth, Sevier County Emergency Radio Christmas QSO Party 80<sup>th</sup> Anniversary of the Egyptian Radio Club, Radio and Science at the Summit of Montana, Several Pearl Harbor Remembrance Day celebrations and Tennessee Christmas. Let me know if you make a contact or two and get a certificate.

I am aware of these upcoming Hamfest/Events in the area.

Nelsonville Hamfest on January 17.

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If you have items for sale and would like me to list them let me know and I will do so as space permits.

From Jim KD8BWV

I have a Heights 44ft aluminum tilt over tower with motor drive tilt over, plus a 20 foot mast. It is designed for 43 sq ft of antenna at 90mph. After a lot of review, permit applications and discussions, I will not be using this tower. If anyone is interested I am sure we could get to an agreement. Give me a call or email and we can discuss. 740-851-4720

From others I received this info of items for sale.....

For sale to a good home:

Icom IC-208H dual band mobile radio, 35 feet RG-213 coax with PL-259 connectors both ends, Arrow dual band J pole antenna, Cobra external speaker, 4' section mast pipe \$350 takes all.

Call 740-243-8146

John, KD8EEK

#### NOTE

This is your newsletter and I am just here to put stuff on paper or in the digital world. Input is always welcome and sometimes needed, in fact the well is getting pretty dry so please help out with some thoughts. Let me know if you have input of ideas for the next issue. Please have a safe and enjoyable month and remember to try and be on the air at lease a little.

**SCIOTO VALLEY AMATEUR RADIO CLUB TREASURER'S  
REPORT**

October 2009

Jim Anzelmo Treasurer

Building Fund	\$ 27.07
Repeater Fund	\$ 240.78
Equipment Sales	\$1724.00
501C Fund	\$ 500.00
Uncommitted Fund	\$1192.54

<b>Total Cash Assets (09/15/09)</b>	<b>\$3684.39</b>
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**Income:**

George Greenlee 2009 Dues	\$ 15.00
Ronald Cochenour 2009 Dues	\$ 15.00
Willis Martin 2010 Dues	\$ 15.00
Tom Oyer Donation	\$ 10.00
Larry Kempton Donation	\$ 5.00
Horizon Donation	\$ 250.00
Huntington Bank Interest	\$ .15

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<b>Total Income</b>	<b>\$ 310.15</b>
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**Expenses:**

50th Anniversary Cake	\$ 50.00
Horizon	\$ 37.19
AEP	\$ 49.77
Nationwide Insurance	\$ 827.00
Huntington Bank "Service Charge"	\$ 15.00

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<b>Total Expenses</b>	<b>\$ 978.96</b>
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Building Fund	\$ 27.07
Repeater Fund	\$ 240.78
Equipment Sales	\$1724.00
501C Fund	\$ 500.00
Uncommitted Fund	\$ 523.73

<b>Total Cash Assets (10/18/09)</b>	<b>\$3015.58</b>
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