

February 2003

Volume 3

Issue 2

SMARCalling



Southwest Missouri Amateur Radio Club <http://www.smarc.org>

P.O. Box 11363 Springfield, MO 65808 PH: 417-886-4152

President's Corner . . .

Regular Meeting
7:00 PM at the
American Red
Cross Building
1835 E.
Chestnut, just
East of
Glenstone Ave.
3rd Monday of
Every Month...

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Feb. 17th  
PSK-31 Power  
Point  
Presentation  
on "RASCAL"  
and PSK-31  
Demo

~~~~~

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Minutes Continued,

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**Public  
Always  
Welcome!**

Hello everyone,

This month's club meeting is about PSK-31, which is one of the more popular digital modes of late. Here are a few web sites discussing this topic for those of you who'd like to read up on the subject a little before the big show ;-)

[www.psk31.com](http://www.psk31.com)

[www.arrl.org/tis/info/digital.html](http://www.arrl.org/tis/info/digital.html)

[www.packetradio.com](http://www.packetradio.com) (we'll have more to say about this guy!)

Equipment requirements are a transceiver, computer (100+Mhz is fine) with sound card/serial port, and an interface between these two. The first part of the Feb. meeting will show constructing one of these interfaces, and then we'll demo using the software. We plan to make some live contacts.

In my experience the hardware is not the difficult issue. Given a set of diagrams, parts list, and a *little* help without ridicule nearly everyone should be able to build the interface.

Next step: The computer's sound card settings and the chosen software must be correctly configured. This is the more difficult part because *it can change from one session to the next!* One of the things to watch for: How many little icons are in the bottom-right corner of your screen? All of these start up each time you turn your computer on, and if any use the serial port, or the sound card, your settings may be altered. Changes may also occur while installing software, running other programs, or just because Windows wants to make room for whatever it is doing *now*. Any of these can result in your settings being modified.

What fun – See you at the meeting!

-73 de Erik, n0ew

### Upcoming Events – Write Them in Your Calendar Now & Come Play!

|                |                                                                                                  |
|----------------|--------------------------------------------------------------------------------------------------|
| February, 17,  | 7:00 PM SMARC: PSK-31 Power Point & Demo                                                         |
| February, 25th | SKYWARN at City Utilities Auditorium 6:30 PM                                                     |
| March, 17th    | 7 PM SMARC Meeting: Converting a Power Supply                                                    |
| April, 5th     | Joplin Hamfest                                                                                   |
| April, 21st    | 7 PM SMARC Meeting: Using an Antenna Tuner                                                       |
| May, 2nd-3rd   | Lebanon Hamfest                                                                                  |
| May, 10th      | Evangel Library, Spfd, kOs, Special Event Station,<br>"Kurt N .Sterba Strange Antenna Challenge" |
|                | VE Testing Session                                                                               |
| June, 28-29    | Field Day 2003                                                                                   |
| August, 10th   | w0c, Wilson Creek Battlefield Special Event Station                                              |

*It's time for membership renewals! Please use the enclosed form to do so and bring it to this month's meeting or mail it to the club PO box. Thank you all for your support last year and in the coming year! Thanks to those that have already renewed, it helps!*

**January 2003, SMARC MINUTES****Attendance:**

|                       |                        |                        |                      |
|-----------------------|------------------------|------------------------|----------------------|
| Louise Buck, kb0vkv   | Dick Higinbotham, k0gl | Erik Weaver, n0ew      | Bill Chambers, n0mbw |
| Don McCroskey, wa0gvh | Jerry Havel, w2rrx     | Doris Havel            | Salley Moore, k0sem  |
| Woodie Moore, w0ody   | Lee Shafer, w0tIs      | Yevonne Shafer, kc0nav | Steve Shafer, kc0nau |
| Mike Rains, k0rfi     | Lance Riffle, kc0kbl   | Ken Baremore, w0krb    | Sue Baremore, w0sue  |
| Bill Harmon, wb0onm   | Skip Crane, ak0c       |                        |                      |

**Guests:**

Don Dillard, n0why      Gary Harrison, k0bc      Roger Grable, n7ixl      Brian Young, kc0nar

**Meeting Discussion, Voting & Announcements:**

Previous Minutes, with noted correction to Secretary, and Treasurer's Report were accepted.

**Repeater Controller with a Digital Voice Recorder (DVR) to be Purchased**

Passing with full support was a motion to allow the purchase of a repeater controller with DVR for approximately \$1,000.00. The club trustee Michael Blake, n0nqw, is to arrange the purchase and installation of a CAT1000 with DVR. Cost is expected to be \$1,000 plus S&H and applicable taxes.

Discussion prior to this unanimous vote covered a number of points....

The 64 repeater will also benefit. Its controller is going bad again. We will move the existing 91 controller to the 64 machine. This will provide its needed repair while providing it a better phone patch.

The old trailer fund has been moved to the general account, and is no longer ear-marked for obtaining a trailer. After deducting \$700 for the purchase of the antenna that is awaiting installation on the 91 repeater, there is approximately \$1500 dollars remaining of those monies.

Skip Crane, ak0c, had found a used controller, without the \$200 DVR board, for \$550, vs. \$750 new. This is the only viable used controller found in the past 6-8 months. It was felt saving only \$200 on such a large dollar purchase and then having no warranty, was undesirable. Skip's time and effort in finding the only viable used repeater are appreciated.

Our trustee is already familiar with this controller and has the \$80 software required to program it. This is the same controller the 49 repeater uses.

We have seen in the past year that just a few of our members going a little out of their way to mention our up coming events has resulted in the word being spread on other area repeater nets. This indicates to us that our repeater can be a major place to advertise our club activities to local hams and scanner folks.

Another big point, and the reason the board is fully in favor of this purchase, is our club has once again begun to do interesting things, from meeting topics to extra-meeting events. We are in fact an active ham radio club that other hams should find benefit in joining our activities. However, they can only do so if they know what we are doing. The use of the DVR will allow us to record in a normal speaking voice any announcements we can fit in the available memory. The current controller only is able to utilize a severely limited vocabulary and is insufficient to describe our functions. We believe we have a good chance of increasing our membership by continuing to hold interesting activities and advertising them.

When we have nothing special to announce, our basic message can remind listeners that club membership is what supports the repeaters the club funds. Even those that never attend meetings or functions, but use the repeater can (should?) help support its cost. Most of our meetings feature some specific and interesting aspect of ham radio. We will now be able to make regular announcements advertising the upcoming meeting topic/speaker. We will be able to announce area hamfests and VE testing sessions, as well as advertise our club's web site, which is another strong advertising medium. We are holding two Special Event Stations this year, and they too will benefit by productive advertising.

**SKYWARN 2003 – Skywarn will be Tuesday, Feb. 25th, 6:30 PM at the CU Auditorium...**

Skywarn will combine the various agencies as we did in 2002. We will hold our regular club meeting on Monday, February, 17th, as normal. Skywarn will be our fist "extra" meeting in 2003.

**Calendar of Events**

A calendar of events was passed around. Membership is asked for any ideas they have with regard for meeting or special event topics. The club web site ([www.smarc.org](http://www.smarc.org)) has changed its calendar to a much more useful and easy to use format, thanks to Lee, w0tIs, for the needed upgrade!

**SPECIAL EVENT STATION, "k0s"...**

Woodie has arranged for us to use the Evangel library for this special event, and there will also be a VE testing session the morning of 5-10-03. We will meet at 9 AM Saturday to set up and start playing with our "strange" antennas! For sure we'll have some ladders and tape measures to use as antennas. Put on your thinking cap and bring whatever odd metal thing you'd like to try out as an antenna. If we can hook a wire to it, if we can tune it, and if we can pump enough juice into it to radiate, we have an antenna! :^D Go to our club web site for some ideas or the link below to get you juices going <http://www.leafwerks.net/n0ew/StrangeAntennas/k0s.html>

ARRL VE testing fees increase to \$12. Also for \$12 the ARRL will handle Address Changes, Renewals, and Modifications for Non-ARRL members – such services are free to ARRL members.

**SMARC – Special Service Club...**

There are over 2000 ARRL clubs and just over 300 of these receive Special Service Club (SSG) status, as has been granted to our club through December 2005. This is to acknowledge those clubs that offer extended service to their community. Civic activities can, and do, vary but include such things as scholastic and youth club interaction, ARES and public service event support, Skywarn, and offering licensing classes (entry and upgrade). SSC's really are active, civic minded clubs.

If we are successful in promoting our club's engaging activities and we are able to increase our membership by a several fold, it is almost a given we will increase our interaction with and support of community events and activities. This kind of growth will bring with it our retention of SSC status, and give us all a much more vibrant and exciting club.

We individually need to focus on having fun with what we are doing, letting other hams know how much fun we are having, and making efforts to make the general public aware of our interesting hobby and specifically of our club's activities. If each of us will take to time to come out and play one or more times this year, help set up & pick our toys, and help with classes, etc., our club will grow.

The worse case is we won't grow, but what will we care? We're having a great time! Fun, like laughter, is infectious.

**Recent Snow Storm**

Our recent snow storm was a record-breaking storm. More snow fell in that storm's life span than had ever fallen previously (the previous record was a little less than 13 inches). Springfield was nearly paralyzed. Cell phones and land lines both had severe service interruption. Ham radio on the other hand clipped along as well as ever. We hams were rag-chewing as we always do, and we helped pass a few messages to concerned loved-ones.

Unfortunately no one thought to contact the media to let them know we hams were able to retain full communications. I think this is partly because we become use to our ability to communicate and the idea of not being able to communicate is foreign to our thinking. This is especially true of those not serving in ARE, RACES, or MARS type services.

Food for thought along these lines is to remember to make ourselves available to relay communications during severe weather, or any time our communities suffer news-breaking conditions. Pretty much, if you're hearing the local news talking about "how bad it is", there is a good chance we should be making our community service capabilities known.

Ken Baremore, our Greene county EC, has begun looking our options along these lines. The city cameras were tuned onto a local cable channel (we think 26) so road conditions in Springfield could be monitored.

**Treasurer's Report as of January 31, 2003**

|                        |            |                    |         |                         |           |
|------------------------|------------|--------------------|---------|-------------------------|-----------|
|                        |            | Expenses           |         |                         |           |
| Assests                |            | Bank Charge        | \$0.00  | TOTAL INCOME            | \$ 485.00 |
| Checking               | \$907.39   | Newsletter         |         |                         |           |
| Savings                | \$4,728.30 | printing           | \$27.40 | TOTAL EXPENSES          | \$ 92.62  |
| TOTAL ASSETS           | \$5,635.69 | sales tax          | \$0.00  |                         |           |
| Income                 |            | stamps             | \$37.00 |                         |           |
| Repeater Fund Donation | \$ 30.00   | Total Newsletter   | \$64.40 | (INCOME) – (EXPENSES) = | \$ 392.38 |
| SMARC Dues             | \$ 455.00  | 146.640 Phone Line | \$28.22 |                         |           |



Year 2003  
**SMARC MEMBERSHIP APPLICATION**  
 (Southwest Missouri Amateur Radio Club)  
 P.O. Box 11363  
 Springfield, MO 65808

Name \_\_\_\_\_ Call \_\_\_\_\_ Date \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Home Phone \_\_\_\_\_ (Other Phone \_\_\_\_\_)  
 License Class \_\_\_\_\_ or \_\_\_\_\_ Associate member (no license)  
 Email address \_\_\_\_\_  
 Sponsor (if any) \_\_\_\_\_

Only for 1st-time membership  
 joining after July 1<sup>st</sup>:  
 \_\_\_\_\_ \$12.50 Single  
 \_\_\_\_\_ \$17.50 Family

Check membership level below:

\_\_\_\_\_ Single membership is \$25.00 per year

\_\_\_\_\_ Family membership is \$35.00 per year  
 (family members in the same home)

Family members who are licensed amateurs

|       |       |
|-------|-------|
| Name: | Call: |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

Would you prefer the club newsletters sent by:

\_\_\_\_\_ US Mail or/and \_\_\_\_\_ Email PDF \_\_\_\_\_ I have text only Email

I am \_\_\_\_\_ I am NOT \_\_\_\_\_ an ARRL Member currently.

I would like to have my name shared with the various Emergency Preparedness groups in this area. \_\_\_\_\_ Yes \_\_\_\_\_ No

Please bring (or mail) this application form to a monthly meeting and give to the club treasurer/secretary. Applications must be accompanied by payment of annual dues.

I would like to donate additional funds for: Repeater Maintenance \$ \_\_\_\_\_  
 PR/Educational Efforts \$ \_\_\_\_\_

New memberships are granted after review by the board.

### Pre-Meeting Special Interest Groups?

We discussed the idea of meeting a little early, between 6 and 6:30 PM depending upon the situation, to hold pre-meetings on topics of interest to hams or those studying to become hams. It is thought there should normally be very little trouble in securing the room for this additional time.

What would we do with this time? We could hold classes to obtain a tech license and then follow it with a series of classes on upgrading to general and extra. We can discuss antenna construction theory, propagation theory, and we can have live demos featuring various modes of operation. We can operate the Red Cross equipment and get some tech's on HF. We have many options.

One of the benefits of holding these training / discussion groups in this time slot, and at our meeting hall, is the people attending will certainly know our club exists and when and where we meet. Over time it is almost certain we would attract new members. It would certainly go a long way towards improving our existing member's skills and knowledge as well as give us more fun things to do together.

We briefly talked about holding regular repeater discussions on similar topics. The Highlandville group did this a year or two ago on the topic of APRS and packet. It was felt such nets would not as productive as meeting early for a pre-meeting however.

### February Meeting – PSK-31

Erik, n0ew, will kick off our next meeting with a Power Point Presentation on building the RASCAL kit interface which allows ones computer sound card and radio to interact. Following this PPP, Lance, kc0kbl, Dick, k0gl, and Erik will provide a demonstration of live operation in this digital mode. Lance will bring his Force 12 antenna, which he showed us for Show-n-Tell. Anyone interested in PSK-31, or any of the digital modes should enjoy this meeting.

### March Meeting – Converting a Computer Power Supply to Power Your Rig

In March we will build some test equipment. There has been some discussion as to what we should construct. The board had originally discussed putting together a dummy load, perhaps of several different flavors (Ten-Tec, [www.tentec.com](http://www.tentec.com), has a nice kit for \$29). At the Jan. meeting w0ody brought up the idea of building a switching power supply (PS). We asked for a vote and the PS won.

The only down-side to the PS is it will be a demo, not a club project in which many of us build one. It is too time consuming to prepare the original used PS pulled from a junk computer.

The power supply is discussed in the May 2002 QST issue. Please read through this to get an idea as to the scope of this project. If we can in fact find the parts around here at the prices mentioned in this article we may be able to put together the power supply for around \$5-\$20, provided we can find a supply of used power supplies. These power supplies will burn themselves out if you over-driving the unit. This was not a big detraction from the point of view of the article because it was discussing salvaging a thrown away computer. Also, the cost is not high, there are useful things to learn, and it should be interesting.

There are basically two flavors of PS that we've found: (1) contains a variable "pot"; (2) has NO variable pot. This pot is what one uses to adjust the PS's output voltage; if you find a PS with one of these you need only put on a meter and turn it one way or the other. Your meter will indicate when you get close to 13.8 volts (if that PS will – not all can obtain this optimal output). "Pots" seem to be in the minority. When selecting a PS look for a small diameter hole that does not appear to be a cooling vent – it *may* be the access point for a variable pot. This is the type of PS that Dick, k0gl, will demonstrate how to convert to 13.8 volt. The amperage is determined by the size of the original PS. The greater its wattage (200w, 420w, etc) the greater the amps available. Bear this in mind when selecting a PS. If you only need to power a 50w mobile, a 200w PS should be fine, but if you want to power a 100w rig look for at least 350w. Larger in all cases is better due to over-driving concerns.

A number of us have been searching the Internet for good web sites on this topic. Here is one we found that discusses what to do when you do NOT have a variable pot. It would seem there are a limited number of basic designs and modifications. You have to identify the resistors that control the voltage regulation, and unlike the QST article's indication, it may not be a matter of locating the "high precision" resistors (in high quality PS's they *all* are!) <http://www.qsl.net/vk4ba/projects/>  
If there are projects you'd like to see the club try, let a board member know!

**Caution: There is enough voltage and amperage in a computer power supply to kill you!**

## 2002 Board Members ...

### Southwest Missouri Amateur Radio Club

P.O. Box 11363  
Springfield, MO  
65808

PHONE:  
(417)886-4152

E-MAIL:  
[smarc@smarc.org](mailto:smarc@smarc.org)

E-MAIL Editor:  
[Editor@smarc.org](mailto:Editor@smarc.org)

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We're on the Web!  
[www.smarc.org](http://www.smarc.org)

Public Welcome!

**PRESIDENT:**  
Erik Weaver, NOEW .....869-4947

**VICE\_PRESIDENT:**  
Lance Riffle, KC0KBL.....890-5856

**SECRETARY:**  
Chris Smith, KC0GOX.....883-6169

**TREASURER:**  
Lee Shafer, WOTLS .....823-8766

**PUBLIC RELATIONS DIRECTOR:**  
Lora Smith, KCOEPD.....886-4152

**DIRECTOR-AT-LARGE:**  
Dick Higinbotham, K0GL,725-5929

**DIRECTOR-AT-LARGE:**  
Woodie Moore, WOODY.....883-2248

All board members may be reached by email at:  
["theircall"@smarc.org](mailto:theircall@smarc.org)

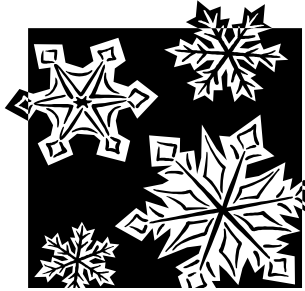
#### Some Useful Web Sites

FCC ULS Info: <http://wireless.fcc.gov/uls/index.html>

Practice Tests: <http://www.qrz.com/p/testing.pl>

License Renewals: <http://www.qrz.com/i/renewals.html>

New Hams - Search for Your 1st Listing! [http://www.qrz.com/new\\_hams.html](http://www.qrz.com/new_hams.html)



*SMARCalling* is a monthly newsletter published by and for the Southwest Missouri Amateur Radio Club, Inc. All submissions for publication must be received by the last day of the preceding month. *SMARCalling* reserves the right to edit all submissions for spelling and when necessary length. All comments on *SMARCalling* may be made to [editor@smarc.org](mailto:editor@smarc.org) or by direct mail.

SMARC  
P.O. Box 11363  
Springfield, MO  
65808