

# MOUNTAIN SPARK GAPS

NPARC - The Radio Club for the Watchung Mountain Area



**N2XJ**

**Club Callsign**

**VOLUME 42**

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**NO. 3**

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## **MEETING ON 26 MARCH 2007 AT SALT BROOK SCHOOL**

**Topics: Update on possible club projects**

**Software Defined Radio, Vector Network Analyzer, etc.**

**Discussion of Sunday Two Meter Net, License Class, Community Radio Service**

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**Past President's Column by Al Hanzl, K2AL**  
**(Present President's Column next month)**



### **“Pinch Hitting for President James, KB2FCV”**

I am not sure what I really felt when I heard that the FCC was dropping the Morse code as a test element. I suppose my first thought was that I was proud that I obtained my license when it was still a requirement. I guess I am more fond of having passed the 13 WPM (for the General- 5 minute straight correct copy) FCC supervised code test in New York City than the 20 WPM test years later (multiple choice- just barely passed it at a BARA hamfest!) But as the last few weeks have gone by it is quite interesting and frankly, rather encouraging, to see what is starting to take place. Several club members heard the news and rushed to upgrade....some with, some without, taking the code. Either way, the main impetus was the FCC's decision on the code. And the daily FCC reports are filled with Technicians upgrading to Generals. I think I underestimated how much the code was holding back many from upgrading. Perhaps ham radio needed a quick “shot in the arm”. I suppose there is nothing wrong with that. On that note, let's hope that there will still be interest by some new HF users in CW. Once mastered, it is a great mode. Congratulations to two club members who have upgraded recently. Ralph, KC2RLM, is now a General and active on HF and Scott (ex-KC2FWX), with new Extra call AB2WF, upgraded with the code and is suddenly obtaining high scores in DX contests!

On another note, the Club Auction was held on February 23 and from all accounts, was a big success. It seems to be growing every year with over 100 attendees this year. And there were lots of good, old fashioned ham gear available for bidding. Perhaps we should give some thought to having it around the end of February every year. There was a lot of discussion about that and other thoughts on constantly improving the auction at the last club meeting.

And one last note from a burgeoning curmudgeon. I read recently that new HF radios are now capable of being remotely controlled from a laptop via an Ethernet connection. Although nothing wrong with sitting in a hotel room on a business trip and accessing your home QTH rig in front of your computer, I still think the real romance and essence of ham radio is, after a long day, to sit down in front of your rig in your basement ham shack, flip the switch, put on the headphones and work a distant station or two. And don't forget to send that QSL card.

88 es 73 es gud DX de Al, K2AL

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## **General Class License Upgrade Class**

NPARC is currently running a class to help those interested in upgrading to a General Class license. Hillary (KC2HLA), Nick (KC2ONP), and John (KC2MTN) were there last Thursday for a couple of hours of discussion and refresher information. We plan to run the class for a few more Thursdays for anyone who would like to attend. The meeting room is in the back of the Berkeley Heights Community Center right next to the Police station/Municipal Building/Railroad Station on Park Avenue, one block from Berkeley Hardware on the corner of Springfield Ave and Plainfield Ave. The room is tucked in the back corner of the main meeting hall of the Community Center and is easy to miss at first glance.

Please attend if you have any interest. We have extra seats and more people will enhance the learning environment for all. We meet Thursday evenings from 7 pm to 9 pm.

73, Scott, AB2WF (Recently ex-KC2FWX) Phone: (908) 875-9633

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## **Half-Century of QST Magazines Available**

Whippany Amateur Radio Club member, Bill Ash, WA2OPG, has a collection of QST Magazines, dating back to 1955; he is interested in finding a new home for. Bill is located in the Morristown area. If you have any interest, or know of someone who might, please contact Bill at [wa2opg@optonline.net](mailto:wa2opg@optonline.net)

73, Rick, WB2QOQ

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## **100th Birthday Party for Ruby Felt, XYL of Carl, N2XJ (sk)**

Ruby Felt, xyl of Carl, N2XJ, will be having a birthday party on 07 April 2007 from 3 pm to 6 pm. at her home, 8 Charles Place, Chatham Borough, NJ. She has extended an invitation to the members of NPARC. RSVP: Her daughter Diane Swett at 908-273-8257. Also: No Gifts Please.

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## **Popular Radio Contests Mid-March to Mid April**

(Researched and supplied by Dave, K2YG)

March 24-25

**CQ WW WPX Contest SSB** (*CQ Magazine*): 0000Z Mar 24-2400Z Mar 25 (CW is May 26-27).

Exchange: RS(T) + serial number. QSO points: see website. Score = QSO points × prefixes worked (for example N8, KA1, HG73, JD1) counted only once. For more information: [www.cqwpw.com](http://www.cqwpw.com). *This is an easy contest and a good one for new HF operators since everyone works everyone, multipliers do not rely on DX only, and the exchange is pretty simple.*

April 7-8

**QRP ARCI Spring QSO Party** -- CW, sponsored by the QRP ARCI, from 1200Z Apr 7-2400Z Apr 8. Complete rules at:

[http://www.qrparci.org/component/option.com\\_extcalendar/Itemid./extmode.view/extid.54/lang.en/](http://www.qrparci.org/component/option.com_extcalendar/Itemid./extmode.view/extid.54/lang.en/) *This is one of the bigger QRP contests. You'll be surprised at what you can work with 5 watts or less.*

Thanks to ARRL and ARCI for some of the above info.

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## **John Schrage, 82, W2WKL, Silent Key**

We regret the passing of John, W2WKL, on 13 February 2007. He was a frequent participant on our club 2-meter frequency, 145.750.

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## **Climatological Data for New Providence for February 2007** from Rick, WB2QOQ

The following information is provided by WB2QOQ, who has been recording daily weather events at his station for the past 25 years.

Maximum temperature for this February, 47 deg. F (February 21)    Last February(2006) max was 58 deg. F.  
Minimum temperature for this February, 5 deg. F (February 5)    Last February(2006) min was 11 deg. F.

Average temperature this February, 25.3 deg. F    Average temp last February, 31.2 deg. F.  
Total precipitation this February – .85" rain; 6.4" snow    Total precip. last February – .86" rain; 14" snow

Maximum daily temperature was below freezing for 14 days this February.

Greatest precipitation days this February - February 14 and 26 = 2.0" snow both days.

Snow fell on 6 days this February.

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## Upcoming Hamfests

### **Cherryville - Saturday, 24 March 2007**, from Barry, K2BC:

Greetings from Flemington, New Jersey. Just wanted to remind everyone that the Cherryville Hamfest 07 is this coming Saturday. This year promises to be another great Hamfest, and the weather, after last weekend, looks like it might just cooperate! Temps are expected to be in the 60's, and only a slight chance of a RAIN-not SNOW shower. But it doesn't matter, the entire hamfest is indoors. In addition to all the vendors, including KJI electronics, QuickSilver and Kathy Sauder, we will have VE testing--walk-ins welcome; SkyWarn training with Joe Miketta from Mt. Holly, and lots of prizes and great food! The Cherryville Hamfest takes place at the North Hunterdon Regional High School, near Clinton, NJ. It's located on Route 31 south, just 1.5 miles south of Interstate 78. Vendors arrive starting at 6:00 a.m., doors open to buyers at 8:00 a.m. Talk-in is available on the Cherryville repeater, 147.375 +, and the PL is 151.4. Bring your appetite and equipment needs and come to the Cherryville Hamfest this coming Saturday, March 24th! See you there! Thanks very much for your help! Best 73, Barry, K2BC, Hamfest Chair

### **Greater Baltimore Hamboree and Computerfest - March 31-April 1, 2007 a.k.a. Timonium**

Hours 6am-5pm Saturday, 6am-3pm Sunday

Arguably the largest East Coast Hamfest. Only about 3 hours drive from New Providence. see the following internet address for more information:

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

### **Dayton Hamvention - 18, 19, & 20 May 2007 - "The Big One"**

Same bat time and same bat channel as previous years. Despite all sorts of unfounded rumors, it's still in Hara Arena in Trotwood, Ohio. Several club members will be there. See the following Uniform Resource Locator (also known as: url, website, web address, internet address) for more information:

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

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### **Chatham 440 MHz Repeater Up and Running!** - from Ralph, KC2RLM

The Chatham WB2CMK repeater on 449.175 is once again operating after being down for maintenance the last several months. The repeater is located on the water tower at Longwood and Fairmount Avenues in Chatham Borough, and has excellent coverage for miles around.

The repeater is owned by Tim Sugrue WB2CMK of Chatham, who originally had it stationed in his home. Tim graciously volunteered to relocate it to the water tower to provide better emergency ARES and RACES communications. When not being used for emergencies, it is open to all users. The input frequency is 444.175 with an input tone of 141.3. Tim has said he would welcome use of the repeater by NPARC for normal chatter and for any ERT (Emergency Response Team) work, although you should contact him (973-635-0272) or [tsugrue(at)optonline.net] if you'd like to use the repeater for any special events.

A QST Article by one of our club members:

## A Transistor Superregenerative Receiver for 10 and 6 Meters

*Workable Receiver Draws 0.06-Watt Total Drain!*

BY W. A. WADSWORTH,\* W2ZKE

WITH the coming of the new electronic device known as the transistor, there has been increasing interest in how it can be applied to amateur use. This article describes a transistor receiver that operates on 10 and 6 meters using the principle of superregeneration.

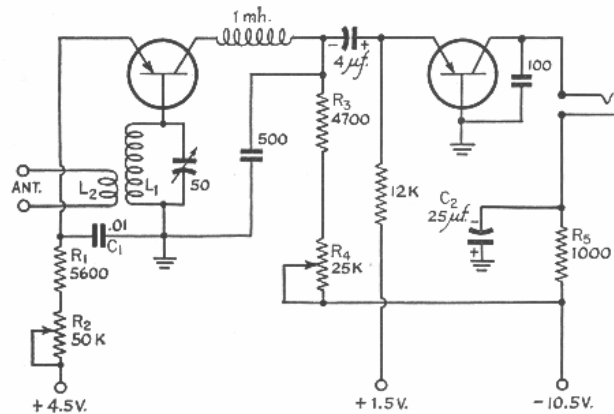
After some thought and trials of different types of oscillator circuits, the circuit that gave the best results, both for stability and sensitivity, is shown in Fig. 1. The detector is a

operates as a relaxation type oscillator, the quench frequency being determined by  $R_1$ ,  $R_2$  and  $C_1$ .  $R_4$  serves as a regeneration control and an audio load.  $R_2$  and  $R_4$  are adjusted for best performance.

In using this receiver with a high power transmitter near-by, the antenna input to the receiver should be grounded during the transmission to protect the detector from high r.f. voltages.

The audio stage gives between 35 and 40 db. of gain and will drive a set of 2000-ohm 'phones

Fig. 1—Schematic diagram of the transistor superregenerative receiver.  
 $L_1$ —10 turns,  $\frac{3}{8}$ -inch diam., 1 inch long.  
 $L_2$ —4 turns over cold end of  $L_1$ .



Western Electric 1734; the audio a 1698. RCA numbers 2N33 and 2N34 also may be used.

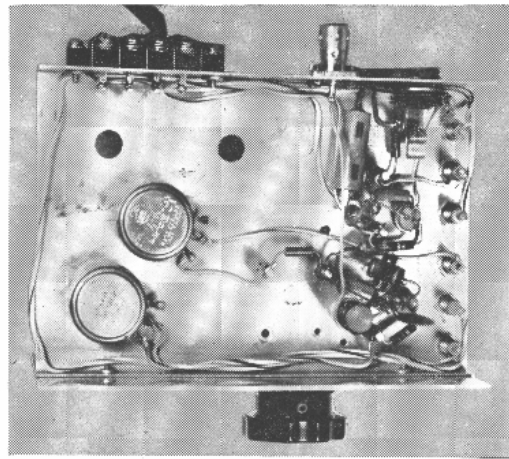
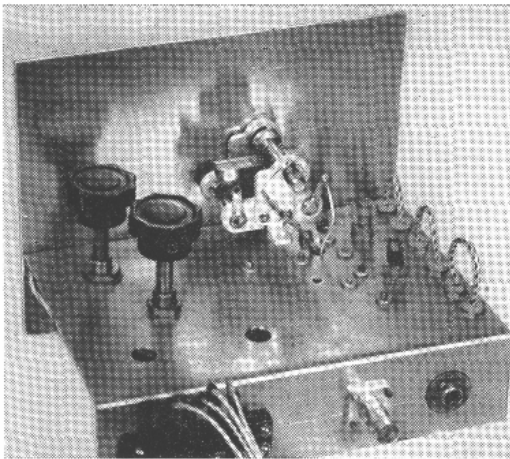
The detector has a tuned circuit in the base which is coupled to the antenna in the conventional manner. The emitter is used to generate quench frequency, between 20 and 100 kc. It

\* P.O. Box 258, Pequannock, N. J.

very nicely.  $C_2$  serves as an audio decoupling to prevent motor boating.  $R_1$ ,  $R_3$ , and  $R_5$  are current-limiting resistors to protect the transistors from burnout.

Signals can be brought in on this receiver as well as they can on an "old-fashioned" tube

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Rear and bottom views of the transistor superregen for 10 and 6 meters. As this is an experimental layout, no attempt was made to achieve extremely small size, but it is still only a medium-sized handful!

### Transistor Superregen

*(Continued from page 17)*

receiver using superregeneration, but the power input to the transistor receiver is only one-twentieth that of a two-tube battery-operated superregenerative receiver. The total drain is only 3.4 to 4 ma.!

Two 7.5-volt "C" batteries were used to power this receiver, the taps being taken off where necessary. The test points shown in the photographs were provided to measure currents in the various elements.

With this little job on the receiving end, contacts were made with W4FBL, Jacksonville, Fla., on 6 meters, and with several 10-meter mobiles at a recent demonstration of transistor equipment at the Morris Radio Club, Morristown, New Jersey.

If you use the repeater, periodically let the carrier drop completely to avoid "timing out" the repeater. It is not enough to wait for the courtesy tone to reset the timer. You need to let the carrier drop.

By the way, another good repeater in the NPARC area is the two meter St. Barnabas repeater in Livingston (NE2S). This repeater is little used, but has great coverage. It can be heard at 146.595. Its input frequency is down 1 MHz (145.595), which is an odd split that may require some special manipulation in your radio. You may want to put the specifics in a memory to make it easier to call up. It also requires an input tone of 100.0. The repeater is open for general use, but you should contact the repeater trustee, George Murillo Jr W2PQC [gmurillo(at)gti.net] if you'd like to use the repeater for a special event.

