



The Compass!

Official Newsletter of the Great South Bay Amateur Radio Club, INC.

March 2019

Volume 47

#3

Next General Membership Meeting: Thurs., Mar. 28th, 8 PM

• **GSBARC Free Amateur Extra Classes Tuesday nights, 7-9:30 PM**

Inside this issue:

- **The QRPometer—a review**
- **Operating CW with the SKCC**
- **Inside the Squirrel Cage—a column**
- **American Air Power Museum**



Will the ARRL Kill ARES? Stay tuned to find out!

Long Island's Friendliest Amateur Radio Club!



President's Message



March is here and is starting like a roaring lion. Last month we were quite busy with our classes and open houses. Our club never seems to have a dull or quiet moment. We are always working on something.

Speaking of projects: Our Fusion repeater KB2UR (446.775, 110.9 pl, negative shift) is still in beta testing mode. It runs both analog and Fusion, so give it a try! The new remote receiver is almost ready for the install so all of you on the south side of the town will make a better trip into the W2GSB 2 meter repeater. Let's hope for the best as we make more and more improvements in our repeater system. W2TOB the DSTAR repeater is now steerable so have fun. It's set up to unlink after a half-hour of no activity. As we continue to advance all the different modes of radio we have noticed that we still need more people to get up on digital communications. FLDIGI is free. Free yes! "FREE" - that's like a magic word for a lot of us. When you download FLDIGI you should also download FLMSG. Once you have downloaded, if you need help with anything, give a call on the repeater or post a question on the club's groups.io page. In the page's files section you'll find the full manual and a link to FLDIGI. As our club continues to grow, we do more and more neat events. I am very pleased at the growth of the Long Island CW club started by one of our members. It sure is great to see a spin-off and another successful club started. Great job guys!

Looking for a radio? A lot of our members upgrade so maybe there is deal out there for you. You never know. As you know we have a lot of fun, but we also are ready if needed for emergency situations. So we are building up our portable Go Kits so that they are easy to set up and get on the air ASAP. We are looking at portable cases to house an ICOM 5100, laptop and power supply so we are looking into the IPortable case which has one shelf and an external speaker with a headphone plug. It also has a power pole

connection and 12 vdc plug for your cellphone or tablet or anything else the operator might have that needs power. If you want to become a RACES member please make sure you have ICS 100, 200 NIMS 700 and 800 as per FCC regulations. All RACES operators must have a current amateur radio license. A Technician license is the minimum level to get started in RACES. The high frequency RACES net requires a General class or higher. We are always looking for more operators to get on board. If you would like to get started in RACES please send me an email at w2hcb@arrl.net.

As I write this month's message, we are waiting to see what Mother Nature has in store for us. As you know I work outside all year long so for the last 27 years when a lot of people are nice and warm inside I am outside getting a stubborn diesel engine running somewhere in the tristate area or replacing a nasty blown hydraulic hose. This always seems to happen when it's 15 degrees and super windy.

There a lot of cool happenings on HF for you all. Make sure you check in to the info net on Monday nights on W2GSB 146.685 for the happenings of our club, Dxpediton listings, contest listings and much much more. Right after that we have Amateur Radio Newslite on the repeater -- the latest news in amateur radio for you all to enjoy. Our local RACES net is done digitally on 144.970 110.9 pl encode decode. We pass the drill message and a few other messages in different modes. We are always at 1500 on the waterfall so make sure you have the RXID TXID on so you decode the message and modes as they come in. I would like to thank everyone who helped with the raffle ticket sales at the hamfest last month. Also thank you everyone who has helped with the open houses. Our general meeting was well-attended and we had some fun. It was great to see so many of you there and to meet some of the new members as well. It is always great to see new people come on down to see our club. I would like to thank all the members who make everyone feel very comfortable. It just goes to show that our club is like a big extended family for some of us and I am glad that some of you do feel that way.

As we hopefully will be coming into some warmer weather I know that many of us have some antenna work to do. After all the heavy winds we had I know so many operators lost parts of antennas and still have not fixed them yet. In my case, my off-center dipole broke but it still works -- go figure! No matter what you all do please have fun. Amateur radio is great way to do it: lots of friendly people all over the world and you never will know where you might bump into someone.

Last month our family went on a cruise and -- yes -- I sported a club shirt. Lighthouse, Airpower Museum etc. On one morning I met a gentleman from Belgium. I don't remember his call sign but we had a great chat as he has worked our club station many times. Then a few days later I ran into an operator from upstate New York and we

had nice conversation about working DX and many other things related to amateur radio. So if have a club shirt wear it! You never know when someone might see your shirt and tell you they worked our club station.

In closing, I hope you get to work those parks on the air and to the QRP gang I hope you have much success with your outings. Always remember if you have an idea that you think would be good for the club please let us know.

Let's hope that the weather starts to warm up during the next few weeks so we can go outside and enjoy operating remotely. As a matter of fact, April 27th is Marconi Day. Make sure your check your spotting programs and work as many as you can. I believe there will be quite a few CW stations on the air that day for sure.

Would you like to win a Fusion radio? If so, don't forget to get your raffle tickets at any open house or meeting. Once again a big thank you to all of our dedicated members who support our club. It is our membership that makes our club what it is.

73. John Melfi, W2HCB 

The GSBARC 2019 Annual Field Day Raffle is Here and This Year it's DIGITAL!!!

GSBARC is bringing its new Yaesu Wires-X repeater system on-line and there's never been a better time to get into the new digital modes than now!

The Grand Prize is a Yaesu FTM400XDR VHF/UHF Mobile radio featuring 50 W FM, C4FM FDMA w/ GPS for APRS(1200/9600 bps) and Micro SD

Second prize is a Yaesu FT2DR Dual Band 5 Watt C4FM/FDMA Digital Touch Screen Hand Held Transceiver

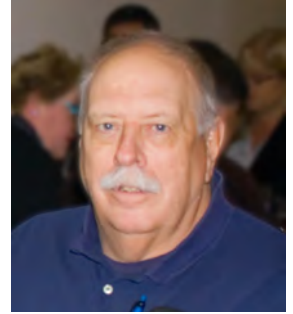
As always, tickets will be \$5 ea. or a book of 5 for \$20

**Raffle drawing is during Field Day dinner on Saturday June 22nd
Winner need NOT be present to win!**



Building The QRPometer

By John Smale, K2IZ



Designed by David Cripe NM0S, NM0S Electronics—Review by John Smale K2IZ

Since my retirement in 2010 I have started building ham radio kits. I missed out on the Heathkits of years gone by. I did operate the Apache TX-1. It must have been something to build: it weighed quite a bit and was very large. Today's kits are of the QRP (low power) type. Some are voice but most are CW. I've built two of the QRP Labs QCX transceivers for 40 meters. The maximum output is in the 5-watt range. With a good antenna, contacts can be made. I've also built the SDR transceiver and I've made a couple of contacts with that also.

I've also built a lot of test gear kits -- again in the low power range -- dummy loads, L/C meters, O scope, QRP tuners and a couple of other items. The tuners were the type where you adjusted the controls until the LED went out. I've always wondered even with the match, just how much power was actually being put out to the antenna. At home I can use my MFJ-993B for a reading but I was always on the lookout for something I could take on a portable operation.

I forgot where I first saw the ad for the QRPometer but it seemed to be what I was looking for. I checked out the specs on the website. In the introduction it says "this kit was conceived to fill a need within the hobby for an inexpensive, highly accurate VSWR and RF power meter for QRP power levels. The QRPometer uses simple analog signal-processing circuitry to provide a set of essential measurements features not previously available in a single unit. High quality, double-sided, printed circuit board construction is used; most components are through-hole for easy assembly. NO toroids are required (thank you!), build

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Operating a SKCC K3Y/ station

By John Smale, K2IZ



There is an on the air organization called SKCC (Straight Key Century Club), one of the main requirements is you use either a straight key, a side swiper or a bug, this is basically an entry level for new CW operators and old timers alike, slow speed sending is encouraged rather than the high speed found in contests and chasing DX.

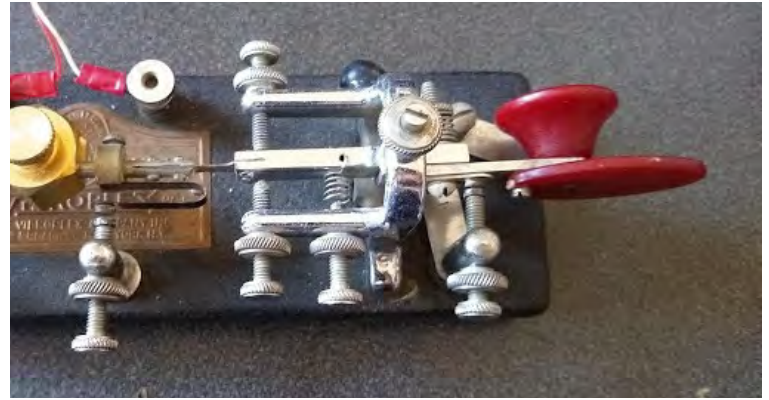
All you need to do to become involved is go to their web site - <https://www.skccgroup.com/> - and apply for an SKCC number, right now they are fast approaching the 20,000 membership number, mine is 5019, among other things they have a sked page, as you increase the number of contacts they have designations to add to your number – Tribune, Centurion, Senator – and every January they have special events stations on the air for the month of January, it's called – K3Y – a play on the word KEY, then they add a / and the call area numbers, in my case I was operating as K3Y/2, besides all 10 call areas of the continental United States they have stations in Alaska, Hawaii, North America (in this case the station was in Yellow knife, Yukon Territories), Europe (I worked France, Belgium), South Africa, South America, Oceania (Australia, got him on 30m CW!) Asia and a few other areas, for a total of possibly working 19 areas.

When I worked /2 I was assigned to a time slot. In my case I'd ask. I couldn't commit because my wife had a pacemaker implanted and I had to drive her to her appointments. But mostly I was on for an hour, switching between 40, 30 and 80 meters. I also found out that, due to advanced age, my using a straight key was out of the question. So, digging into my old Radioman 3&2 study guide from the Navy and doing a lot of searching on the internet, I was able to come up with the right additions and adjustments to make my

4bugs sound almost like my K1EL keyer.

I've added a picture of the Vibroplex Original bug that I did most of my sending with, according to the serial number it is one year older than me, you can also see the brass weight that I added to slow down the speed of the bug, if you want to get something like this you have two choices, one is to order it from a station in the Midwest, he'll charge you almost \$20 including shipping for one of these or, you can do like I did, go to Home Depot and buy a pair of Brass Stair Gauges, with tax almost \$5.00

In less than a month I worked WAS, chatted with quite a few interesting stations and gave my OCF antenna a nice workout, according to the designer it's not supposed to be resonant on 30 meters but, with the help of an external tuner, I worked Australia, I also added my certificates that I got from the SKCC group, I'm looking forward to next year's event. 📄



Inside the Squirrel Cage

by Caryn, KD2GUT



When you're female and an amateur radio operator, diamonds aren't necessarily a girl's -- or a YL's -- best friend.

Ask my OM. To celebrate the annual intersection of Christmas and my birthday (it takes talent to pull off that kind of yearly convergence), he'd invited me – special invitation in hand – to a deep-discount event at one of downtown Huntington's fine jewelers, a personal favorite shopping spot of ours that was having a "retirement" sale.

"Pick what you want," he said, as the sales staff buzzed us through the security door later that week. "Yeah man, turn me loose," I said to myself – and I was off and running, my brain full of the promise of birthday bling.

At last! Earrings. Bracelets. Necklaces. Oh my. Except, like a poorly constructed antenna, nothing was resonant. Even 15 minutes later, nothing. These gems were surely treasures, but they were someone else's treasures. Mine had become headphones, HTs and hotspots, multi-faced and precious. It took those moments in the jewelry store for me to figure that out.

"So what would you like?" the OM asked, after pointing out a few likely candidates twinkling seductively beneath the well-lit glass display case.


"Uhhhh," I mumbled, much to my horror. "I think I want a hotspot."

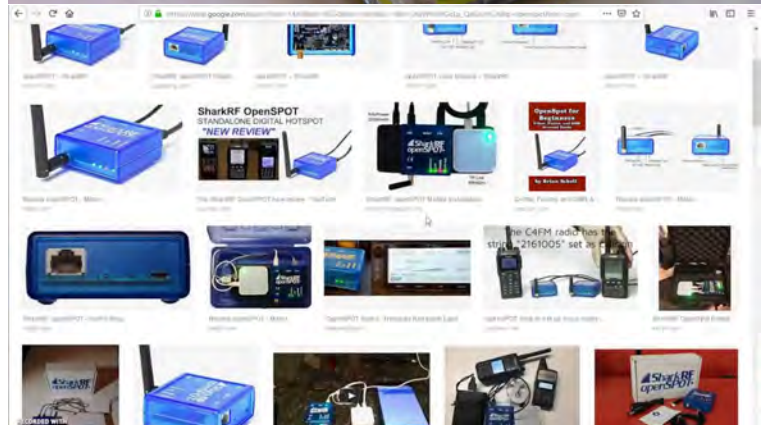
"A what? What's that? Is that a ham radio thing?"

(Yes. Yes it's a ham radio thing. I want a ham radio thing. I want ham radio BLING.)

I wasn't expecting this from myself – a transition from diamond lust to digital love. What caused this? Was it HF going funky when the sunspots went MIA? Or is it simply gadget geekdom?

Well, it is all that – and simply ham radio too.

As for diamonds, don't worry: I haven't really ruled those out after all. I hear there's a nice dual band antenna that can deliver some very nice mobile QSOs on 2m and 440. The manufacturer? Diamond, of course. 



As you can see, there is no shortage of different hotspots available out there, click the image above for info...

QRPometer... continued from page 3

time is approximately three hours, depending on experience level, the only equipment required for calibration of the QRPometer is a digital voltmeter and a QRP transmitter.”

As with any kit you build, it is suggested that you open the parts package over something that will keep the parts in one place rather than have them bounce all over, leading to a lot of crawling around with a flashlight, wondering how the heck such small parts can bounce so far. There are a lot of small capacitors and resistors. It took me much longer than three hours total to build. Checking and installing those small units in the correct slot is rather time-consuming so, rather than make mistakes because I rushed, I took my time. One thing different from other kits is the construction of the meter case. “Assemble the four side panel pieces around the main board and use rubber bands to temporarily hold them in place, making sure that the edges are perfectly flush. Be sure the rectangular solder pads on the side panels correspond to the solder pads on the component PCB. Using a soldering iron place a small, pea-sized, solder fillet on each of the rectangular solder pads between the component board and the side panels and in the four corners of the side panel junctures.”


The calibration is the next-to-last step. The unit’s power is provided by a 9vdc battery. The first adjustment is for the 5vdc. This is done by adjusting the R33 trim pot. The second adjustment is where I ran into problems. It calls for using a QRP RF power source of 0.5W to 5.0W. Flip both switches on and calibrate the pot on the back of the LCD (on which I had to remove a solder pad from one position and solder two other pads so the meter was in the right range). No matter what I did I couldn’t get a reading. After going through and checking and re-soldering everything, or so I thought, I contacted NM0S via email and described the problem to him. He answered very quickly. He thought it might be a bad TLC555 and he offered to either send me a new one or I could return the unit to him and he would check it out. I ended up doing the latter. We kept in contact via email. He said he ended up changing both the 555 and the TLC2272 and still kept getting strange voltage readings; he finally emailed me and said he had hit every component with his soldering iron. It turned out that my soldering on the two big switches wasn’t quite good enough. After he touched them up the unit worked fine and he did the final calibration and returned the unit. That, to me, is true pride in a product you put out. David said he checks at least one unit a year to make sure the components are as they are supposed to be and their quality is as called for.

Note: I spoke with Ed, KD2ADC, and went over what

I had done: I am using an HAKO 888 soldering iron with KESTERS .031 solder and I have the temperature set at 650F. Ed said that when he gets parts that are larger than the regular resistors and capacitors he switches to a wider tip and turns up the heat. He said the bigger connectors can act like a heat sink: it might look like they are connected but it’s not a good solder connection.

The operation is as follows: The QRPometer is inserted between the QRP rig and the tuner or antenna. In the OFF condition, the meter is bypassed and may be left in-line without signal loss. When the meter is switched ON, it may be operated either as a power meter or VSWR meter. In the PWR mode a 50 ohm, 16 watt dummy load is switched in and the connection to the antenna is disconnected. This permits testing of a QRP transmitter without radiating QRM. The accuracy of the power meter is typically 2 percent or better from 100mW to more than 15W.

In the VSWR mode, a resistor bridge type circuit is switched in. This inserts 6 db of attenuation between the QRP rig and antenna, which limits the VSWR presented to the rig to less than 2:1 during tune-up into an unknown antenna. This is a valuable feature for use with QRP transmitters that lack any VSWR protection. After the VSWR has been nulled, the meter should be switched out to remove the attenuation. Accuracy claims of the VSWR meter is typically 5 percent, so that at minimum VSWR the meter may read something other than 1.00.

I’m looking forward to going on a couple of remote QRP setups to see how the QRPometer works. If you are interested it can be ordered from: https://www.tindie.com/products/NM0S_qrp/qrpometer/ 



The American Airpower Museum

By Bob Myers, K2TV



The American Airpower Museum is located at the former site of Republic Aircraft in East Farmingdale, Long Island, New York. The airfield is now a busy general aviation airport fittingly enough called Republic Airport. The museum is housed in a hangar that was used in the manufacture of many aircraft over the years including the P-47 Thunderbolt. The museum has an original Republic P-47D fighter among its

airworthy fleet. Most of the museum's extensive collection of WWII aircraft still fly and can be seen at many air shows throughout the Country. The museum is open on Thursday through Sunday every week. See the website; americanairpowermuseum.com for more information and hours of operation.

The Great South Bay Amateur Radio Club is proud to be able to operate a special event station every year from this beautiful historic museum. This year we will be operating special event station W2GSB from the museum on Armed Forces weekend May 18th and 19th. Keep your calendar open to come down and operate the station or contact the station from home. 📞



QSL card photo credit: Nancy Epstein & Fred Miller

GSBARC is no longer using Yahoo Groups due to issues with the platform. We have transferred everyone over to <https://groups.io/>

If you were a member of any of the Yahoo groups just sign up for a free groups.io account and you will have access to the new groups. [Groups.io](https://groups.io/) has most of the same features as the Yahoo groups and some additional ones as well, like the ability to have live chats. ☺

Club Apparel

Want a shirt, jacket, hat, sweatshirt or t-shirt with a Great South Bay club logo? We now use *Mr. Shirt*, located at 80 East Montauk Hwy. in Lindenhurst (www.mrshirt.com). Now you can get color matched backgrounds on your logo too. Check them out... ☺

ARES/RACES Information

Div. 1—Town of Babylon ARES/RACES

Net: 146.685/R, Mondays 8:15 PM
EC/RO: John Melfi, W2HCB, (631) 669-6321

Div. 2—Town of Huntington ARES/RACES

Net: 147.210 MHz +600/ PL 136.5,
Mondays 7:00 PM

EC/RO Steven W. Hines, N2PQJ,
<http://www.huntingtonnyaresraces.org/>

Div. 3—Town of Islip ARES/RACES

Mondays 8:30 PM

EC/RO: John J Blowsky, KB2SCS, 631-467-2410

Div. 4—Town of Smithtown ARES/RACES

Net: 145.430 MHz, PL136.5, Mondays 7:30 PM
EC/RO: Rich Johnston, KC2TON, 631-872-4039

Div. 5—Town of Brookhaven ARES/RACES

EC/RO: Ted Debowy, AC2IR, 631-751-6576

Div. 6—Riverhead ARES/RACES

EC/RO: Steve Casco, W2SFC, 917-701-3919

Div. 7—Southampton ARES/RACES

EC/RO: Removed & Currently Vacant

Div. 8—Southold ARES/RACES

EC: Don Fisher, N2QHV, 631-765-2757
RO: Charles Burnham, K2GLP, 516-779-4983

Div. 9—East Hampton ARES/RACES

EC/RO: Eddie Schnell, WZ2Y, 864-973-9250

Div. 10—Shelter Island ARES/RACES

EC/RO: Vacant (Neal Raymond, N2QZA, SK)

Suffolk County

ARES/RACES Net:

Mondays 2100 Local—145.330/R (136.5PL)

Alternate Frequency—146.820 (136.5 PL)

New York State

RACES Net (HF)

Sundays 0900 Local, 3993.5 KHz LSB

2019 VE Session Dates

- March 23rd
- April 27th
- May 25th
- June 22nd
- July 27th
- August 24th
- September 28th
- October 26th

All sessions are at the Town of Babylon EOC at 10 a.m., located in the basement in the rear of town hall. Please bring photo ID, a copy and your original amateur radio license (if you have one), and any CSCEs you may have. Non programmable calculators are allowed. The exam fee is \$15 payable by cash or a check made out to "ARRL VEC."

Visit [FCC Universal Licensing System site](http://www.fcc.gov) to register for an FRN number to use on the paperwork.

The GSBARC Repeater List

146.685 W2GSB - shift 110.9 Hz Enc/Dec

223.860 W2GSB - shift 110.9 Hz Enc/Dec w/ ECHOLINK

223.860 - shift 156.7 Hz Enc/Dec Local use

440.850 W2GSB + shift 110.9 Hz Enc/Dec

446.775 KB2UR - shift 110.9 Hz Enc/Dec

927.3125 W2YMM - shift D606 Enc/Dec

440.250 W2TOB/B + shift DSTAR REF020A Babylon

445.725 WD2NY/B - shift DSTAR REF020A Selden

Grow Giant Vegetables with **MAGIC MANURE**, manufactured daily on the farm. 40- to 50-lb bags free for the taking, already bagged. Pick-up or Delivery to EOC available. References available upon request. Contact Salli at:

k2ryd@arrl.net.



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Club Name Badges

Club name badges are available from *The Sign Man* (www.thesignman.com) of Baton Rouge, LA.

The badges which are 1-3/4 in. x 3 in. If you visit The Sign Man's webpage you can order the badges by using a drop down selection on the orders page and clicking on "Great South Bay ARC—NY" ☺

