



The Compass!

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

February 2020

Volume 48

#2

**Next General
Membership Meeting:
Thurs., Feb. 27th,
8 PM**

Inside this issue:

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- **Photos from Winter Field Day**

- **GSBARC Amateur Extra License Classes
Currently in progress. Tuesday nights, 7 to 9:30 PM**



Long Island's Friendliest Amateur Radio Club!



President's Message



Winter Field Day was a huge success! The setup crew did a great job. Thank you to Lou NO2C and Salli K2RYD—and most especially Sparty for the use of their backyard. We did a great job on the bands with the club trailer radios. The Icom 7100 radios worked great. The computer control and logging worked very well. It was awesome. I need to thank Gary N2ADC for making sure it worked smoothly. I also want to thank Mike KC2SYF and Keith AC2MI for working the satellite station. I was thrilled to see my rotor in action. Mike brought his Icom 9700 radio which worked great. It was so good to see all the stations in use throughout the Winter Field Day event. We did notice a slight issue with the trailer which I addressed while it was raining. I found out it was the result of a loose antenna on the roof. No big deal: all fixed and away we went! The other issue we noticed was limitability with antennas. So after talking about it and doing a little research, we discussed it again at the general meeting and voted on an upgrade to the trailer of a diplexer for 40 and 80 meters with filters for each band. It is like the triplexer for the beam. This will allow us to set up two antennas and cover all the bands. As we continue to do more and more remote operations, it sure is great to have our club trailer equipped to handle all it can. Over the last few years we have made upgrades to make setup run much more smoothly when we use the trailer. So, with the addition of the diplexer we can set up the tower trailer with the beam and an off-center fed dipole center on the tower with two ends on masts or tree branches (or whatever else can support the ends). I sure hope we get more and more members involved at special events this year. We always have a great time wherever we go.

We also talked about the annual raffle that we do and we decided to raffle off 3 prizes. The 1st prize will be an Anytone 878 with a Shark RF OpenSpot 3



2nd prize will be a Buddipole long version



3rd prize is a Shark RF OpenSpot 2



Tickets will be \$5 each and the best deal is to buy a book for \$20. Tickets will be sold at ham fests and all our open houses and meetings and all the events—maybe even at Dayton. The winners will be pulled at our next annual Winter Night Out in February 2021. These are some great prizes so make sure you get your tickets.

As we started to clean up the inner room at the EOC we sorted through all the stuff. We will be at the LIMARC Ham Fest on the 23rd selling some of it. Coming soon we will have an eBay listing for some of the other items. Speaking of cleaning, it needs to be done in the club room and trailer and our storage areas and job boxes.

So we will start doing some of the work on Saturdays as we get all our projects together. At the general meeting this month we had an IT issue with the smartboard. We noticed that it was no longer connected to the internet via the cat 6 cable so we will address that as well many other projects that need finishing.

Our club's success comes from the dedication of all our members. Every time we get new members they bring some new ideas. That's always great because it allows us to expand on several other amateur radio endeavors

Our annual Winter Night out was at the Irish Coffee

Pub in East Islip and we had a great event. The food was fantastic and we had a nice size turnout. Congratulations to all the winners of the door prizes which were all donated by Bill WB2QGZ, Ed KD2ADC and Jean, along with my wonderful wife Michelle and me. We got so many compliments about the Winter Night Out! I really have to thank Jean and Ed KD2ADC as they spearheaded this dinner. Jean worked very hard making trips to the venue to make sure we would have a great night out. If you missed the evening, don't miss next years. That's when we pull the winners for our annual raffle mentioned above.

I must say I am looking forward to all the events we will be doing as we start our special event season with the Marconi event here in Babylon Village on April 25th at Lewis Circle. The club trailer will be set up for operation and the tower trailer along with an off-center fed dipole giving us three stations on the air. Hopefully conditions will be in our favor. So all you special event operators get ready for the first all-out on-the-air event of this year. The Air Power Museum event will follow on Saturday May 16th and 17th so please contact Bob K2TV at K2TV@yahoo.com if you would like to help with that. I cannot attend because I have a family event that weekend.

Field Day—HOLY COW! Did I just say “Field Day?”—Yes, I did.

We need to start talking it up to get a huge amount of help with setup and takedown. We always run short at takedown every year. We once again will be 6 foxtrot CW operators. You will be needed! We ran short of you all last year. SSB operators—can you do it? Can you out-score the CW side? Last year, we gave you a killer advantage with the beam 80 feet in the air. If all goes well, I might have three 80-foot booms for this year's Field Day and yes, CW operators, your beam can be 80 feet in the air as well. So does this sound like a challenge—or what?

We love a good challenge here at GSBARC and we always do a great job because of you the club members. Like I said in my first message as president 11 years ago: we are a team and there is no “I” in that word. I cannot take all the credit for what we have accomplished in the past 11 years. If you all did not pitch in, we would not be where we are today. So thank you ALL very much for what you do!

A final note on public service at GSBARC: We pride ourselves on helping at events that are not just amateur radio-related. So to everyone who has worked public service events with us in the last year, thank you. We will be asked again to help out with several events so we will need your continued involvement. A special invitation to new hams: If you just got your license and want to help out when we do the public service events, please let us know.



We need more RACES members. If you are interested there are some ICS courses you need to complete ICS 100 <https://training.fema.gov/is/courseoverview.aspx?code=IS-100.c> ICS 200 <https://training.fema.gov/is/courseoverview.aspx?code=IS-200.c> ICS 700 <https://training.fema.gov/is/courseoverview.aspx?code=IS-700.b> ICS 800 <https://training.fema.gov/is/courseoverview.aspx?code=IS-800.c> Once done send me a transcript of the courses then I can send them to the county to get you on the RACES team. It is great to help out when help is needed for whatever it is, from emergencies to public service events

The ARRL has now made EC-001 a free online course so if you want to get that certification you can too.

Please email your ICS Transcripts to me. My email is w2hcb@arrl.net

Anyway, winter is here—well, sort of—even if the groundhog did see his shadow. So let's see what really happens! Keep those batteries charged and those radios ready just in case.

Have fun chasing parks and DXPEDITIONS. (Speaking of that, Pat N2IEN went on a fun one and here is a link to the video they made. ENJOY IT!)

<https://vimeo.com/364396566>

Whatever you do have some fun and enjoy our great hobby. Get on the air!

73. John Melfi. W2HCB 📻

Boat Anchor Radio Restoration-Part 3

by Phil, W2UV



Editor's Note: *Boat anchor restoration involves working with high-voltage equipment. If you are not comfortable with or don't fully understand the safety issues involved—DON'T DO IT. For safety reasons, it is also recommended that you not attempt any of this while working alone.*

Congratulations! You finished all your section checks and electrical repairs and now it's time for the final push toward the first electrical test of your work. Things you will need: your calibrated Variac, contact cleaner and contact wash, all your tubes, and your VOM.

First, let's get your volt meter hooked up to the output of your Variac. Set the meter to volts AC, the dial on the Variac to 0 volts, plug it in making sure not to short the output and turn the meter on. While things are warming up, make a cardboard dial that's the same size and scale as the one on the Variac with the tick marks for the voltage settings and fractions. Leave the numbers off for now. Turn the knob on the Variac to 10 volts and check the meter. The numbers should be the same. If they're different for the same record reading on the dial card you made, repeat this every 10 volts until you have covered the whole range of voltages on the Variac. At some point you will see variances of +/- 10 or more volts on the meter. This is of extreme importance. Make note of them on the dial card you made; you will see why later. Put your dial card on the Variac aligning the card 0 to the Variac 0. Your Variac is now calibrated to the standard of your VOM.

Now for the messy part. Set the chassis of the radio on a thick old towel or padding of newspaper. Make sure you

have adequate ventilation in your work area as the solvents in the contact cleaner and wash are flammable and toxic if you breathe enough fumes or get lots of it on your skin. It isn't a bad idea to put on some nitrile gloves at this point. For each tube socket, spray some cleaner into all the pin holes. Gently put the tube in the socket and remove it, spraying cleaner in the socket each time. Two or three times is enough usually. Next, spray the contact wash into the socket to remove the cleaner. Do this for all the sockets. Once that's done, it's over to the dark side—I mean the underside of the chassis. We are going to repeat the cleaner-wash sequence for all the switches, wafer switches, and pots in the radio. Take special caution here not to get any of the cleaning solution or wash onto the air gap tuning capacitors, it will change the value of the cap because the cleaner leaves a lubricating film behind in between the plates and you can't get it off. Spray the switches. Work them many times back and forth. Spray the wash on, exercise the switch and repeat until the switch action is smooth. Usually about four times is enough. Next the pots: spray them with the cleaner and exercise the pots back and forth many times. Squirt the wash in and repeat the cleaner-wash sequence until the pot feels smooth. Caution is needed here again do not get the cleaner on the dial string if the set has one; the lubricant in the cleaner will make the string slip on the drive pulleys at worst or the string will bind and squeak. Either way, you will have to replace the dial cord and that is NOT FUN or EASY. Then clean up and let the radio sit for 24 hours to let all the residual solvents evaporate.

The moment of truth approaches! Back at your bench the next day, you've hooked up the antenna and the external speaker if the set has one. You have the line cord in one hand and—STOP! STOP! STOP!! Did you check the operating voltage of the radio? Huh? It's AC right? So the wall voltage is going to be ok, right? NO, NO, and maybe some more NO! You did check the tag on the set or on the original line cord for the voltage spec—if not, you'd better dig out the manuals you downloaded and start searching. Remember, you calibrated your Variac for a reason: most if not all of these old sets aren't made to operate on 120 VAC. The spec sheet in the manuals often calls for 105 to 110 volts AC or 110 to 115 volts AC. I've even seen some real ancient ones that call for a 100V AC/DC. So what do you think happens when you plug that antique into modern line voltage? All the transformers get overworked and overheated and—POOF!!—out comes the magic smoke. Don't believe me? Let's just say the set has line voltage of 105 VAC. The power transformer steps that up to 450 VAC before rectification. That's a gain of 4.2857 volts for each volt on the primary side to yield 450 on the secondary. So

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Inside the Squirrel Cage

By Caryn, KD2GUT



I had wanted, more than anything, for radio to be the hero of this story. “The Land God Gave to Cain,” the 1958 thriller by the British writer Hammond Innes, follows the extraordinary measures which the son of a ham radio operator in England takes to prove his late father had intercepted a distress signal sent by CW from Labrador, despite poor band conditions.

Though repetitive at times, the tale is—to borrow an apt cliché—a page-turner. The frantic call supposedly came from one of three survivors of a small plane crash at a remote expedition site—but questions surface as to whether one of the survivors ultimately murdered the other.

Ah, but never mind the cloak-and-dagger element: any ham will tell you that this murder mystery is really about radio, isn't it? It's that—and one man's attempt to confirm a DX contact in a remote area during a time of poor propagation.

Spoiler alert: the son endures a harrowing journey to the crash site and unravels the mystery (I won't spoil that part for you) and locates the old radio just as he and his own search party become stranded and need emergency communications. He tries to send his own distress signal but the radio, having been exposed to the elements, is in questionable condition. The frozen north of Labrador is not an opportune environment in which to undertake any boat-anchor restoration.

We do learn, however, whether Dad actually intercepted that signal—or not. The book is also an affirmation that there are still those of us who'll go to extremes—serious extremes—in pursuit of an eyeball QSO. 📻

A Simple Guide To Successful Dxing

By Tom, KA2D



At one time in every ham's life you will try your hand at chasing DX. Not everyone has a tower and beam antenna so you must maximize your effort to work DX in the midst of what seems to be endless callers with what seems like huge antennas and big amps.

As a “little pistol” DX chaser, you can be successful in not only working your first 100 DXCC entities for the prized DXCC Century Club Award, but beyond that to the DXCC Challenge which requires 1000 band/mode DX QSOs to DXCC Honor Roll which requires 330 confirmed QSOs. “#1 Honor Roll” requires confirms from all entities on the current active list. Currently there are 340 entities on the DXCC list, the number needed for Honor Roll is 330. Deleted entities do not count toward the Honor Roll.

What you need to do and know:

The Station;

The antenna. A simple wire antenna such as a dipole is a start. Beware of claims that one antenna can work for all bands. A full-sized dipole for 40/20 will cover 40, 17, 20 and 15 with an antenna tuner. All good DX bands with worldwide propagation. Get them as high as possible over 35 ft.

As you get hooked on DXing an investment in a tri-band/multi-band on a roof tower or tower is the best investment you will make.

The radio; Buy the best receiver you can afford. Read reviews in QST, CQ and eHam. Ask the local DXers and Contesters what they are using.

Computer; computer logging is not must, but I highly

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Simple Guide To Successful Dxing, cont'd from page 5

recommend using computer logging along with the other resources the computer adds to your station. A computer logger does more than keep your log, with access to DX spotting cluster, access to online DX information, QSL and awards tracking. When used in conjunction with rig control and DX spotting, it will alert you as to what stations you need for "a new one," and an easy QSY to that station. It will also have gray line maps, beam headings and list of other tools that will aid your quest to work the DX.

An AMP; I recommend an amp, it does not have to be full legal limit, but having the capability of 500 watts will help under marginal conditions. You do not have to run out and get an amp in the beginning, but if you decide that DXing is your thing, it is a good addition to your station.

DX information; The internet has made this very easy to accomplish. There are many good DX bulletins published weekly which are free. You can access this information on the web or subscribe to have the bulletins sent to your email account. There is trend for the major DXpeditions to have a website with daily updates and online log to see if you are in the log.

My preferences are: 425 DX News (425 DX News is a free of charge weekly bulletin edited by Mauro Pregliasco, I1JQJ and Valeria Pregliasco, IK1ADH), OPDX Bulletin (The Ohio/Penn DX PacketCluster, Editor Tedd Mirgliotta, KB8NW, Provided by BARF80.ORG (Cleveland, Ohio) The 425 DX News also publishes a calendar of posted DX operations world wide

GSBARC has DX info as part of the weekly net. The local DX club always has good tips and insider information. Check out the Long Island DX association.

The how-to; Scan the weekly DX Bulletins for stations you want to work. I use a freeware propagation program from W6EL. It predicts which bands and at what times the propagation is best for you to hear the selected DX. Scan the DX Cluster spots too for a pattern of when the DX is working your part of the world. Stake out that frequency... maybe call CQ to troll for that rare one. Being in the right spot at the right time is worth 10KW before they are posted on the spotting cluster... try it, it works!

Participate in the major DX contests. The BIG GUN DX stations welcome your QSO and are usually good QSLers, now most confirm via Log Book of the World (LoTW).

KNOW YOUR RADIO. Know how to operate split. Split is when the DX station is listening for callers on another frequency. On voice the DX will say "QRZ up 5 to 10,

or they will state listening 200-210. On CW or Digital up 1-5 etc. Do not transmit on the DX frequency. When in doubt, don't transmit. Learn to ignore the DX COPS and LIDS transmitting on the DX frequency. If you hear a local, decrease your power and say his name and to listen up, once is enough...DON'T BE A DX COP. Listen, listen, listen. Look for the pattern, are they staying in the small split, moving up or down after each contact... Don't call if the copy is marginal, don't call if they are only working Europe, Asia etc... know some basic propagation.

Good Luck! .. see ya in the pileups. ☺

Boat Anchor Restoration-Part 3, cont'd from page 4

you think you are going to get away with a 120v on the primary watch: $4.2857V * 120V = 514.28$ volts—YIKES! All those 450 caps you replaced might just go up in smoke if that 514.28 V is outside the tolerance range of the caps you spec'd out when you ordered your parts.

So that's why you need the calibrated Variac. Now plug the Variac in, set it to 0 volts, plug the set into the Variac and turn it on. Now adjust the Variac to 10 volts—YES 10 volts—and leave it there for an hour. If nothing sparked turn the Variac up another 10 volts, leave it for an hour, still checking for magic smoke and sparks. If all is well, another 10 volts up with the requisite one hour wait and continue in this fashion if all is well. Somewhere around 50 or 60 volts you should see the filaments begin to light and glow. Once the filaments are glowing and there's been no untoward events, go up by 20 volts, wait an hour and repeat until you get to the specified operating voltage of the set.

Tune around, check the switches and pots—hey there's WWV on 10 MHz and CHU on 75M—it works! Congratulations! Good work; you have brought it back to life and you didn't get zapped!

Now all that's left is to align the set. You'll need nonconductive tuning wands (Hint: Amazon has them real cheap) and just follow the directions in the service manual and you should be all set. I am not going to cover alignment because every set out there is different.

Remember to play that radio at least every 30 days to keep everything in top shape. Till next time 73 and happy electron pushing.

CORRECTION to PART 2: Concerning the foil end of the capacitor, if the capacitor is connected to the plate of a tube the foil end goes there as it is the lowest impedance point in that circuit the other end would go to the grid of the tube in the next stage. ☺



More pictures on back page...

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: Philip Jacobs, W2UV, 631-838-2500

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 (136.5 PL)

Alternate Frequency—146.820 (136.5 PL)

New York State

RACES Net (HF)

Sundays 0900 Local, 3993.5 KHz LSB

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" ☎



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

2020 VE Session Dates

- February 22nd
- March 28th
- April 25th
- May 23rd
- June 20th
- July 25th
- August 22nd
- September 26th
- October 24th
- November 28th
- December 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.

A Few More Pics from WFD 2020

