



# The Compass!

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

November 2019

Volume 47

#11

Next General Membership Meeting:  
Thurs., Nov. 21st, 8 PM — *Note: this is one week earlier than usual due to Thanksgiving*

## Inside this issue:

- 70 Years A Ham
- Restoring Boat Anchor Radios — Part 1
- KB6NU's Guest Column
- Pictures from the SC Marathon
- GSBARC General License Class begins Tuesday night, November 19th, 7 PM



Long Island's Friendliest Amateur Radio Club!



# President's Message



**F**all is upon us as you can see and feel. It's great weather for putting up towers and antennas.

Our first public service event was the Babylon Village fair we had a great time. It was a fun event. We played with a little HF radio and did a few demonstrations on digital as well as HF communications. Thank you to everyone who attended that event. By the way, this is a very easy public service event for first-timers to work.

The Suffolk County Marathon was our second public service event. Thanks to everyone who helped, you did a great job once again. The Suffolk County Police, OEM and Fire Rescue and Emergency Services were very impressed with our performance. You should all be very proud of yourselves. Despite the rain, you were great. Special thanks to all the first-timers. I know it got confusing at the end with that black Impala. Thanks for having the patience while I was dealing with the Suffolk County police to make sure we could secure the posts. The information passed helped get medical attention to runners who needed it. WB2QGZ and KA2D were very helpful in the setup of the trailer at 05:00. We fired up the generator and had it running from 05:15 am to 2:45 pm and I am pleased to inform you all that the trailer radios all worked great and the generator only used about 2.5 gallons of gas. Net control started at 06:00. Thanks to all the operators who were at their posts before 06:00 and there till the bitter end.

Our Net Control operators Salli K2RYD and Lou NO2C in our club trailer were on one of the ICOM IC 7100 radios. Alternate frequencies were on the other two ICOM IC 7100 radios and the 2 ICOM 5100 radios as well. K2RYD did a great job as net control and went right on the air upon her arrival.



Bill WB2QGZ also acted as assistant net control at times while monitoring the weather situation. The weather was challenging for everyone out on the posts. Thank you all for being dedicated to the runners' safety and once again you showed the commitment of public service to the community.

A word about digital messaging: For the last two years we have been asking everyone involved in Emergency Communications to get set up. A lot of the new radios make it very easy to do and we had hope to have a good showing for our annual SET, but we don't know what happened. We had a very disappointing SET. I know that some of our major players were away but that was not the problem. Thank you to KA2CAQ, K2LI, K2LDC, and AB2ZI who took part in the SET which we cut short due to the lack of operators. Amateur radio offers a ton of fun events but we also must recognize the importance of what we offer to the community. Providing support for public service events is a great way to show the public what we do. If we don't

participate in drills for emergencies, it can cause a delay in passing important traffic. You can find the programs we use at the links below

Fldigi <https://sourceforge.net/projects/fldigi/files/latest/download>

Fmsg [https://sourceforge.net/projects/fldigi/files/fmsg/fmsg-4.0.14\\_setup.exe/download](https://sourceforge.net/projects/fldigi/files/fmsg/fmsg-4.0.14_setup.exe/download)

We use 144.970 simplex for digital communications. We would like to get a lot more people involved. Please do what you can to get on digital messaging via radio. If you need help with setup, ask for help.

All RACES members please make sure all your ICS certifications are done. If you want to join the Town of Babylon RACES team you need to get ICS 100, ICS 200, NIMS 700 and NIMS 800. Once you get those please let me know email me at [w2hcb@arrl.net](mailto:w2hcb@arrl.net)

Training is available online – for free:

<https://training.fema.gov/is/courseoverview.aspx?code=IS-100.c>

<https://training.fema.gov/is/courseoverview.aspx?code=IS-200.c>

<https://training.fema.gov/is/courseoverview.aspx?code=IS-700.b>

<https://training.fema.gov/is/courseoverview.aspx?code=IS-800.c>

Follow the courses. Everything is explained. Then take the review tests and then the final at the end. You will be mailed a certificate in PDF format after you pass each course. You can also get a transcript when done with all the courses. We will need a copy of that for sign up.

If you live in Suffolk County once you are part of your local RACES team you can then be registered with the Suffolk County RACES and New York State RACES. Membership is free. You just need the training and radios – then you can get involved. I hope we see an increase in the RACES membership all over Long Island.

Mother Nature has been very interesting over the last few years. So in the interest of seeing what's going on Mike KC2SYF and I have put up weather flow weather stations

You can see mine at <https://smartweather.weatherflow.com/station/11718/grid>

You can see Mike's at <https://smartweather.weatherflow.com/station/11507/grid>

If you're a weather geek or just would like your own weather station you can pick one up at the link below

<https://weatherflow.com/smart-home-weather-stations/>

I hope all who wanted one of the new club jackets got their orders in. A big thanks to Greg K2KAF for designing the new jacket and handling the ordering. These jackets are going to look great.

We had nominations for club officers and two directors at our October general meeting. We opened up the floor for nominations but to our surprise the current executive board and the two directors are all running unopposed. I would like to thank you the membership for giving me the privilege to be our club's president once again. I also want to thank all our board members for doing a great job. Year after year we all strive to make sure we listen to the whole membership. We have had so many very neat new operating events and the open houses have become very popular again. The revival of the 10 meter SSB net is a great thing to see. AF2SC along with NO2C have done a great job. You can find the 10 meter SSB Net on Net Logger. What is cool about Net Logger is that net control boots it up and then everyone else can see who is checked in. To get Net Logger free, go to this link:

<http://netlogger.org/download.php> You need to enter your call sign and email to download. There is a drop-down to select your version. They have versions for Windows, Mac and Linux.

With Thanksgiving approaching on the 28th we have moved this month's meeting to November 21st

Please make a note of that.

Remember amateur radio can be whatever you want it to be. There are so many new things always coming out for us, not to mention all the portable antennas and satellite setups and digital modes. As soon as you get used to one, another one pops up. So get on the air, be heard and have a ton of fun. I hope everyone has a great Thanksgiving and is looking to spend time with family and friends.

*73. John Melfi, W2HCB* 📻



# Boat Anchor Radio Restoration Techniques—Part One

By Phil W2UV



**W**e are going to talk about the basics of tube radio (also called boat anchor radio) restoration. Note: If you are not comfortable with or don't fully understand the safety issues involved in working with high voltage – DON'T DO IT. Instead, find someone who can safely do the repair. Or read, read, and read some more until you fully understand the risks involved. These radios, including the All American© 5 tube radios (AM broadcast receiver) have

voltages at lethal levels all over the place. When these were made, there was no U.S. Consumer Product Safety Commission. The assumption was that if you were going to take these apart and attempt a repair, you knew what you were doing. A lot of these radios -- including the All American 5 type, some early Hallicrafters and others -- are known as hot chassis radios:

Depending on which way the plug is placed in the wall socket, you stand a 50/50 chance of the chassis being at LINE VOLTAGE potential. Touch the radio and a grounded object at the same time and you stand a very good chance of meeting your maker. In the manuals for these radios you will sometimes see the following: "If reception is poor or overly noisy turn the unit off and reverse the plug in the wall socket." By doing that, you took the line voltage off the chassis, leaving it isolated. Above all DO NOT PLUG IT IN to see if it works without going through the testing and replacing of components as needed. Doing so runs the risk of burning out power transformers, IF transformers, tubes, and other parts that maybe irreplaceable.



What tools are needed, then? Nothing fancy. You will need a current limited isolation transformer and Variac. For this you will have to look diligently or make your own. You can buy one from any of the major suppliers; however even though it says isolation transformer IT IS NOT ISOLATED if the power cord has a three-prong plug or if the primary side has white, black, and green wires. The transformer frame is connected to the ground lug of the plug on the input and on the output socket. IT IS NOT GROUNDED. When plugged in it is connected to the neutral buss in the breaker or fuse panel and then to ground. Stick a multimeter on it between the ground lug and a true ground like the ground rod by the electric meter. It should show somewhere around 120 volts. You can test this another way if you have a modern oscilloscope with a three-prong plug. Take your multimeter in continuity mode and put one probe on the earth pin of the line cord (unplugged of course) and the other one on the ground side of the scope's BNC connector. It went "beep," didn't it? Now with the so-called isolation transformer UNPLUGGED, plug the scope into the transformer, attach a meter probe to the ground pin of the transformer's power cord and one probe to the ground side of the scope's BNC connector. It beeped again, didn't? This is a very good way to let the magic smoke out of a very expensive tool, especially since you already verified that the ground in the wall socket is really the neutral and at 120V! To use a modern oscilloscope on tube gear it has to be truly floating or ISOLATED as does the Device Under Test (DUT).

The next tool is a VTVM -- a vacuum tube voltmeter. Along with its high voltage probe, it is used to reference the specified voltages at the tube pin outs. The takeaway here is make all connections with the DUT turned off and UNPLUGGED. Plug it in, turn it on and take the reading. Turn it off, unplug it and repeat as necessary. In the event you have to make a reading with the DUT on, make sure you are not touching anything grounded. Stand on a dry rubber mat if you have one, stick one hand in your pocket make the meter ground connection then probe the hot side. Remember plate voltages can run as high as 2.7KV depending upon the transmitter or amplifier. Why only one hand? It prevents a through-and-through path across the heart if you get zapped; you stand a better chance of surviving it. After all it only takes 100 mA to stop your heart. ABOVE ALL NEVER WORK ALONE! If an accident happens you can't call 911 when you're out for the count on the floor!!!!

*continued on page 7...*

# How To Get “Plugged In” To The Amateur Radio Community

By Dan Romanchik, KB6NU



**T**his morning, I found this email in my inbox:  
“Thank you for your website and great content. I passed the Tech and General tests on Saturday, and I will be taking the Extra exam in November. Your “No Nonsense” guides were very helpful.

“I do have a question, though. How do I stay current on what’s happening in the ham world? For example the CQ WW SSB contest was this weekend. How do newbies know this kind of thing? How do we find local or regional hamfests and other events?”

This is a great question. Like any special interest, it can seem daunting to get plugged in (pun intended) to the community. Here are a few of my suggestions:

Join the ARRL (<http://arrl.org/>). The American Radio Relay League (ARRL) is really the place to start for information related to amateur radio. QST, the ARRL’s monthly magazine, includes news about upcoming contests and ARRL-sanctioned hamfests. It also reviews new amateur radio products and provides a wealth of technical information.

In addition to QST, the ARRL publishes many email newsletters that members can subscribe to. For example, Contest Update is a biweekly newsletter that not only lists upcoming contests, but also includes tips on operating contests. The ARES E-Letter is a monthly public service and emergency communications newsletters. There are also email newsletters for ham radio instructors, those interested in DX, legislative matters, and satellite operation.

Join your local club. While the ARRL will help you keep abreast of amateur radio news and events nationally and

internationally, if you want to know what going on in amateur radio in your area, you should join your local club. To find clubs near you, go to <http://www.arrl.org/find-a-club>.

Visit the WA7BNM Contest Calendar (<https://www.contestcalendar.com/>). This contest calendar has become my go-to resource for any and all contest information. This site provides detailed information about amateur radio contests throughout the world, including their scheduled dates/times, rules summaries, log submission information and links to the official rules as published by the contest sponsors. Its features include an 8-Day calendar, a 12-Month calendar, and separate calendars for state QSO parties, CW contests, and QRP contests. You can also get a weekly e-mail of contests taking place in an 8-day period (Monday through Monday), as well as a list of contests scheduled for the next week and a list of log submission information for recent contests.

Ham radio blogs. Blogs are also a good way to keep up with what’s going on in amateur radio. I like to think that I do a good job of covering what’s going on in amateur radio, but, of course, I can’t do it all. That being the case, you might also want read other blogs. Other amateur radio blogs that you might want to check out include:

- The K0NR Radio Site (<http://www.k0nr.com/wordpress/>)
- QRP—When you care to send the very least (<https://w2lj.blogspot.com/>)
- EverythingHamRadio (<https://www.everythinghamradio.com/>)

There are a bunch of other good ones out there. Find the ones you like and subscribe to them, so that you get a notification when new items are posted.

Mailing lists. Mailing lists are kind of old school, but if you have a special interest, chances are that there is a mailing list for it. For example, I own an Elecraft KX-3, so I subscribe to the Elecraft KX User Group mailing list (<https://groups.io/g/Elecraft-KX/>). Many amateur radio mailing lists are migrating to the Groups.io. To find a list, just click on the “Find or Create a Group” link at the top of the page. I just did a search for “amateur radio” and found 910 different amateur radio mailing lists.

Podcasts and videocasts. Podcasts are also another great way to stay up with amateur radio. I’m partial to the ICQPodcast (<http://icqpodcast.com/>) because I am on the panel once a month. The podcast not only includes a discussion of what’s new in amateur radio, but also a feature, which digs a little deeper into a particular topic. Other great podcasts are Ham Radio Workbench (<https://>

*continued on page 7...*

# 70 Years a Ham

By Urb LeJeune, W1UL © 2019 All rights reserved.



It was 7 a.m. on November 25, 1949, the day after Thanksgiving, and I had been planning my trip to the FCC field office in lower Manhattan for many months. My ever-vigilant mother was using her best efforts to convince me not to go that day because it was drizzling and snow was forecast for the afternoon. When she saw how important the trip was for me, she relented. What helped convinced her was that school was closed and the FCC was open.

I had been studying for the test for a few years with a year or so taken off when the hormones kicked in and girls seemed more important than ham radio. Thank goodness that phase passed quickly.

My Elmer, Jim McGinty, SK W2YYJ, would not let me take the test until I could copy Morse Code at 18 words per minute on W1AW. I disliked him at the time, but I will be forever grateful because not only did I copy the 13 WPM license test solid, but I was comfortable enough with my code to get on the air with a home-brew rig on 40 meters. To this day more than 80 percent of my HF QSOs are on CW. Three of my buddies took their FCC test when they could copy Morse at 13 WPM on W1AW. All three failed the code test. Two of them never got a license.

If there were vanity calls back in those days, I would probably be W2YYJ today.

At one point I had been given a copy of an ARRL handbook. I had read it cover-to-cover, including ads. My CW test was not a problem, thanks to W2YYJ. Reading the handbook plus an ARRL license manual put me in a state of mind where I was totally convinced I would pass the test. I also passed the second class radio-telephone license. In due course, W2DEC arrived in the mail.

Back in 1949 there were only three classes of license: A, B, and C. Class C was a conditional license. If you lived too far from an FCC field office, you could arrange to have the test proctored. If you passed you received a Class C license. The entry level license was a Class B which roughly equates to today's General; however you could not operate phone below 10 meters. You had to be a Class B for a year before you could take the Class A test, then you could operate phone on 75 and 20 meters. There was no phone on 40 meters.

An interesting sidebar was that most hams did not know that "W" calls were being reissued in the second call area. It was not unusual when people would say, "hi old timer" when I worked them on the air.

At the end of my licensing year I went back to NY and took my Class A license. I was so excited that I went to Harrison Radio and purchased a microphone even though I didn't have a rig with a modulator.

The day after I received my driver's license, I enlisted in the Army Signal Corps Reserves, not out of any sense of patriotism but you could occasionally get free radio gear. When it came time to go into active duty service during the Korean War, every person in my basic training battalion went to advanced basic training. I went to six months of school at Fort Monmouth, New Jersey which was only about 40 miles from my home.

Ham radio has really been good to me. It might well have saved my life by keeping me out of combat during the Korean War and into best radio and electronic school the Army had to offer.

In my late teens and through my late 20s I had the propensity to be in the right place at the right time, frequently for the wrong reason.

## *Significant changes over the past 70 years:*

- VE Sessions were created, eliminating the need to travel to an FCC field office for a license or upgrade
- Code requirement eliminated for FCC-issued ham radio licenses
- Transition from AM phone to SSB
- Vanity calls
- Satellite and moon bounce
- Operating a rig remotely
- Digital free software from Joe Taylor, K2JT, making QSOs with stations that are 20 DB below the noise level possible — Joe Taylor's FT8 produced more on-air QSOs than all other modes combined
- Discontinuance of Novice and Advanced class license

although present holders can renew them forever.

- The demise of Heathkit, signaling the shift of hams being technology-based to appliance operators. Hams rarely build anything anymore.
- One of the best sunspot cycles and one of the worst.
- DXCC listing in QST transitioned from a half-page monthly containing the mixed and phone honor rolls, new member and endorsements to an annual yearbook.
- FCC does almost no rule enforcement.

You can no longer ascertain the location of a person with an FCC-issued call. When W1UL (my initials) became available I jumped on it with no problem with the FCC despite the fact I have lived in New Jersey my entire life, except for my time spent in the military -- and even then took basic training and Signal Corps school at Fort Dix and Fort Monmouth respectively.

I'll leave it to the reader to decide if these things are good or bad for ham radio.

When not writing articles for newsletters or working DX or FT8, Urb is usually enhancing his ham license preparation website, ham-cram.com. His system has 4 distinguishing characteristics:

1. We only study correct answers.
2. We only study the pool questions most likely to be on the test.
3. The goal is to work smarter, not harder.
4. It's free.

73 Urb W1UL, [Urb@ham-cram.com](mailto:Urb@ham-cram.com) 609-937-5487

I'd love to hear from you. ☺



### *Boat Anchor Restoration... continued from page 4...*

Find an RF signal generator or a friend who has one. You will need a 450- to 455-Khz source to do the alignment of the receiver. The device's manual will tell what frequency is needed and the exact procedure. Also, use nonmetallic tuning wands to adjust the slugs in the IF transformers and coils.

You also need a tube tester or a friend who has one and a Simpson model 260 multimeter or similar. It can measure as much as 5KV with the dedicated high voltage probe and it is sometimes specified in the alignment instructions. A modern digital VOM is often Hi Z (impedance) and will place a load on the circuit under test leading to incorrect actual readings or settings. Also, an oscilloscope is a handy unit to have on hand just make sure it can handle the voltages of the circuits you might be probing.

With the tools, some good research and common sense, you are all set to go. Next time, we will talk about where and how we start, see those caps in the picture they got to go. I will explain why next time. 73 stay safe and happy electron pushing, W2UV Phil. ☺

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### *KB6NU's column, continued from page 5...*

[www.hamradioworkbench.com/](http://www.hamradioworkbench.com/)), and Linux in the Ham Shack (<https://lhspodcast.info/>). Internet video shows that are worth checking out are Ham Radio 2.0 (<https://www.livefromthehamshack.tv/>), Ham Radio Now (<https://www.hamradionow.tv/home>), and Ham Nation (<https://twit.tv/shows/ham-nation>).

This is by no means an exhaustive list. If you have an amateur radio information resource that you find particular helpful, please let me know. ☺

*—Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog ([KB6NU.Com](http://KB6NU.Com)), the “No Nonsense” amateur radio license study guides ([KB6NU.Com/study-guides/](http://KB6NU.Com/study-guides/)), and often appears on the ICQPodcast ([icqpodcast.com](http://icqpodcast.com)). When he's not trying to keep up with ham radio, he likes to build stuff and operate CW on the HF bands.*

*—Editor's Note: Another exceptional resource not mentioned by Dan is Amateur Radio Newsline as a source of what's going on in the Ham Radio community. It's been around longer than any blogs he mentions and it has definitely been around longer than Ham Nation since its existence predates video. You can hear Amateur Radio Newsline either on your local repeater or as a downloadable mp3 from the website which is [arnewsline.org](http://arnewsline.org). If you can reach one of GSBARC's repeaters, listen for Newsline on Mondays at 7:45 p.m.*

# The Suffolk County Marathon







## 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](http://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

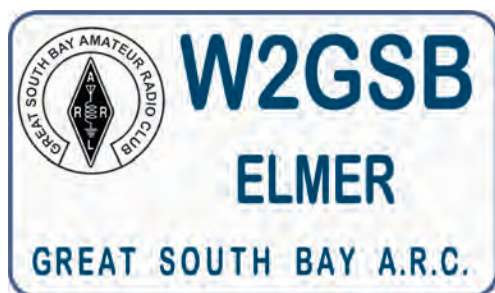
### RACES Net (HF)

Sundays 0900 Local, 3993.5 KHz LSB

## Club Name Badges

Club name badges are available from *The Sign Man* ([www.thesignman.com](http://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



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# 2019 VE Session Dates

- November 23rd
- December 28th

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.

# SAVE THE DATE!

Mark your calendar for Ham Radio University 2020—to be held on Saturday, January 4, 2020, at LIU/Post in Brookville, Long Island.

The HRU 2020 Committee has held its first meeting and is looking for volunteers to help in the planning process.

Please let us know if you would like to become a member of the Committee -- and/or have suggestions for forum topics and moderators.

The next HRU 2020 Committee planning meeting will be held Tuesday evening, November 12th.

You can contact us on line at: <http://hamradiouniversity.org/contact-us/>

We look forward to seeing you at HRU 2020!

