The Compass!

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

June 2025 | Volume 53 | #6

Field Day Weekend is June 28-29

Inside this edition:

- NOTE: All GSBARC Official Meetings begin at 7:30 PM!
- Technician License Classes Starting Tuesday, June 3rd from 7 - 9 PM in the EOC and Running Through August
- Air Power Museum Armed Forces Day Event Photos
- AB2ZI'S YouTube Picks
- List of upcoming GSBARC meetings and events
- Zen and the Art of Amateur Radio Maintenance
- Beginners Intro to Frequency, Phase and Wavelength
- International Dog Day

Long Island's Friendliest Amateur Radio Club!

Great South Bay Amateur Radio Club, Inc.
Upcoming Meeting and Events Schedule

2025

- **June 26th —** General Meeting
- **June 28th & 29th —** Field Day

- **July 11th —** Maggie Fischer Cross Bay Swim
- **July 12th —** Tesla Science Center Expo (rain date July 19th)
- **July 31st —** General Meeting

- **August 14th —** Board Meeting
- **August 16th & 17th —** International Lighthouse and Lightship Weekend @ Fire Island Lighthouse
- **August 28th —** General Meeting

- **September 7th —** Babylon Village Fair
- **September 25th —** General Meeting

- **October 19th —** Suffolk County Marathon
- **October 30th —** General Meeting

- **November 13th —** Board Meeting
- **November 20th —** General Meeting — Nominations

- **December 18th —** Annual Business Meeting and Elections

PRESIDENT'S MESSAGE

June means it's time for Field Day. Our club trailer is all ready with 800 watts of battery power. Thank you to all who were part of all the trailer enhancements over the past few months.

We be running 3 Foxtrot with a GOTA station and a satellite station. We will set up two BuddiHEX antennas as well as the end-fed dipoles. We are hoping for a well-attended Field Day. Please mark the dates, June 28 -29. We need to set up. Starting at 9:30 a.m., we will put up the end-fed dipoles. We will we need three to four people to take care of that and about three people on the BuddiHEX antennas. The GOTA station will use the second BuddiHEX and one of the end-fed antennas. We have to set up the end-fed antennas in line with each other. The satellite station setup will be my personal satellite setup plus the club's satellite antenna.

If you have never been to our Field Day, please make every effort to be part of the fun. CW operators, please bring your CW keys. All operators please use headphones. We need daytime, nighttime, overnight and morning operators to keep us on the air for the 24 hours. All stations will start at 2 p.m. sharp calling "CQ CQ CQ W2GSB Field Day." Please let's not hunt and pick. Let's try to improve on last year's numbers. There will be a script for you follow. Once you have done this a few times you will develop a cadence. Trust me, when I attended my very first Field Day, I had no idea what to do. I had to learn and once I started calling CQ it got easier and easier. If you need help, we have many seasoned operators who can help you get started and the next thing you know you will be able to call just like the DX-peditions stations operators do. We will be W2GSB 3F NLI.

There will be prizes for the top operators and they will be given out at our August meeting. Will you be one of them? You have to come and operate to be in the running. More on Field Day later.

The Air Power Museum event was on May 17th

First on-site Jeff KC2ZQO and I started to unload the truck and waited. Thank you to Leon KD2NOC for meeting us. Stu AF2SC and Charlie K2ONA were the next to arrive, then Walter KA2S. Thank you to everyone who came to Air Power Museum special event station: AC2KQ, N2AKJ, KD2X, W2DIY, W2YW, KE2DFA, WB2PPC, W2JPM, NA2MM, KD2UZT, KC2SYF, KD2ZDY, KD2GUT, AC2MI.

We were set up pretty quick, thanks to everyone who was there to help us. Conditions were bad to say the least. Every contact was a tough one for sure. NA2MM did get a few CW contacts but it sure was a tough copy.

The killer operator again was Daniel W2DIY on FT8. Too bad he had to leave for work – but we got great news: He got time off for Field Day weekend!

We tried CW and SSB, but the bulk of our contacts were FT8. To make sure it was not our equipment, I fired up my rig when I got home. The bands were as flat as can be. I checked the NOAA space weather radio dashboard, and the solar flare was almost at the G3 level again. The MUF was 4 MHz to 5 MHz We packed everything up, loaded the truck, and departed for home around 3:30 p.m. I would like to extend my gratitude to the crew who stayed behind to assist with breaking down and packing everything. Thank you to Walter KA2S who met me at the EOC the day after, and we put everything away.

We did have one issue we have to investigate. We had some bleed-through of RF, possibly bad band-pass filters or a problem with the triplexer. So will be doing some tests to see what's going on. The Triplexer was tested by Keith AC2MI and tested better than the specs listed. The current band-pass filters are at least 15 years old and have not always been used correctly. I can recall many times someone having a band-pass filter on and saying nobody hears me. So, we had Keith test the band-pass filters for us as well.

The EOC stations are laid out just like the trailer stations: When you come down to the EOC the first station is 10 meters and 80 meters, the second station is 15 meters and 40 meters, and the third radio does 20 meters. The 40/80-meter stations will be coming very soon to make this happen. We have purchased and received the diplexer. Hopefully we will have it installed soon.

Continued on page 4...

President's Message cont'd from page 3...

The board members along with some of our very active members have been working very hard to make our club station a fully functioning three-radio setup.

The remote station project is getting ready for the next step. I met with the mark-out company, and they gave us a path for the trench. The town has made the saw cut for us. Here are a few pictures of the saw cut. Now the station is one more step closer to being a reality.

Now all we have to do is the digging, we will need help with that step, and with laying in the pipe for the feed lines and control cables to the tower – and then to the building. We will also be installing a weatherproof electrical box where the feed lines and control cables will be terminated.

We also must lay the tower down to install the 6-meter element and repair one support. This is very exciting. It will give us four stations for you to have fun with at the EOC.

It is hard to believe we started this remote station project back in 2020. There is a good amount of work left to do, all help will be appreciated. The benefit of the remote station is it can add a fourth station to the EOC set up. We can use it for special events if needed. Some members have asked about home use of the remote station. We are not going to do that just yet. Maybe in the future I will reach out to remote ham radio to see how to do that and the costs involved.

Meanwhile, some more things to remember about Field Day:

Set your cell phone calendars for FIELD DAY JUNE 28 – JUNE 29. ALL HANDS-ON DECK WE NEED LOTS OF OPERATORS FOR THE OVERNIGHT: CW, DIGITAL OPERATORS AND SOME PHONE OPERATORS IN BETWEEN THE DIGITAL AND CW OPERATORS SO THEY CAN TAKE BREAKS. LET'S HAVE A BLAST.

Once again, we need set up crew, operators' day night and day, and take-down crew. Come on down and please have some fun. If you have a camper and want to spend the night, feel free. Sorry no tents, as we cannot use spikes. Please bring your own chairs to relax in and please make every effort to be active with us on Field Day and other events as well. We are looking into some other outdoor open house events this summer so watch for announcements. Who knows? We might be at a beach park or library or a parking lot someplace. We want to get out there so more people can see what we are all about. Also to show off our Club trailer as well.

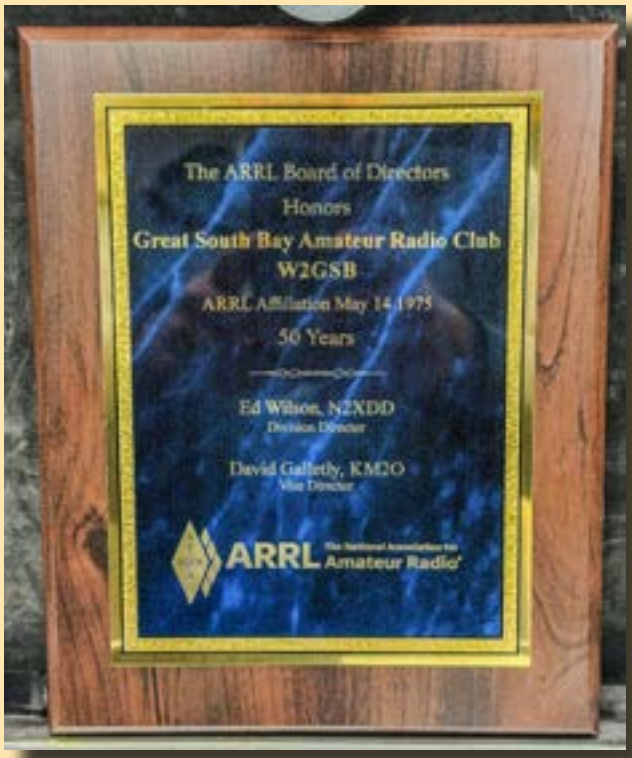
There is a Tech class starting on June 3. Do you have anyone you know who wants to get into our great fun world of amateur radio? Spread the word!

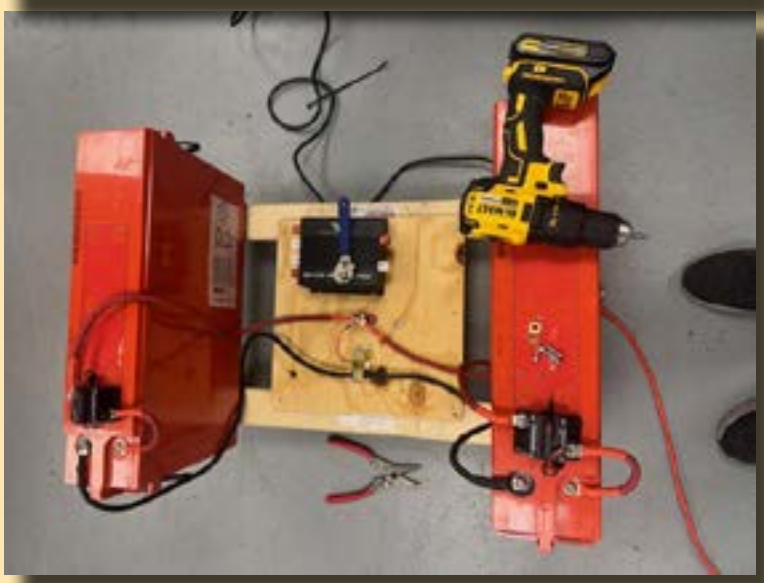
At our May General Meeting, we received a plaque at from the ARRL for 50 years as an ARRL club.

The plaque was presented by Ed Wilson N2XDD, the Hudson Director. (Soon to be hung on the wall in our club room picture taken by Leon KD2ONC)

Our general meeting was well attended and the presentation on the Nano VNA by Allen Wolke W2AEW was awesome. I hope you all got something out of it. Allen is a popular YouTuber with over 200,000 subscribers. Check out his channel out at https://www.youtube.com/w2aew

AF2SC and I laid out the design for battery backup and it will provide a good model to follow for your stations at home also. Everyone should have battery backup even if you have a generator. I have been a big supporter and have voiced many times to you all about the importance of battery backup for your home stations. On May 30, AF2SC and I worked on the battery backup system. All the stations, the three IC-7600 HF radios and the ID5100 will be wired to a fuse block that supplies power to all the radios and will also have power pole pigtail available for testing.





On June 26, our meeting will be all about Field Day. Please make every effort to attend this meeting. We will have a sign-up sheet for operators to reserve an operating shift.

Let's hope for some great HF conditions for Field Day and our other events. We look forward to seeing you at many of our events.

Please go to our new website and click subscribe www.gsbarc.org

I hope you have playing radio and getting lots of DX stations, Parks on the Air stations and those special event stations. No matter what you do, have fun

— John Melfi, W2HCB

The Unbalanced Load:

Satire, Ramblings and Non-Sequiturs for Your Amusement from AB2ZI and ChatGPT

Zen and the Art of Amateur Radio Maintenance

In the quiet hours of the evening, with the shack bathed in the glow of dials and displays, there's a kind of meditation that happens. One hand on the tuning knob, ears attuned to the faintest whisper of DX—this isn't just a hobby. It's something more.

Many of us came to amateur radio because we were curious. Maybe it was the idea of global communication, maybe emergency preparedness, maybe just a fascination with how things work. But over time, we discover that ham radio offers more than technical challenge or global contacts. It offers a practice—a way of engaging with the world and ourselves. In this way, it's not unlike the philosophy Robert Pirsig explored in Zen and the Art of Motorcycle Maintenance.

Pirsig's book wasn't about motorcycles so much as it was about Quality—that hard-to-define but easy-to-recognize harmony between purpose, precision, and presence. Motorcycles, for Pirsig, were a metaphor. For us, it's the radio.

When we align an antenna, balance a feedline, or troubleshoot a mysterious hum, we're not just solving problems. We're participating in a dialogue between man and machine. And in that dialogue, our mindset matters. A distracted mind makes sloppy solder joints. An impatient operator overloads the mic gain. But a calm, attentive operator—someone tuned in not just to the rig, but to themselves—hears the difference. Sees the details. Feels the rhythm of the airwaves.

This is where the classical and romantic ways of thinking meet—another of Pirsig's key ideas. Some hams love the romance of the air: the call signs, the skip, the excitement of an unexpected contact. Others love the mechanics: decibels, wave theory, circuit design. But the magic happens when we respect both. When we care as much about how it works as about that it works.

At The Great South Bay Amateur Radio Club, we see this balance in our events and in each other. The new ham asking how to get on HF, and the elmer showing how to build a balun from scratch—they're both on the path. They're both practicing Quality. It doesn't matter if you're on a $3,000 rig or a homebrew QRP setup. What matters is the intention you bring to the mic.

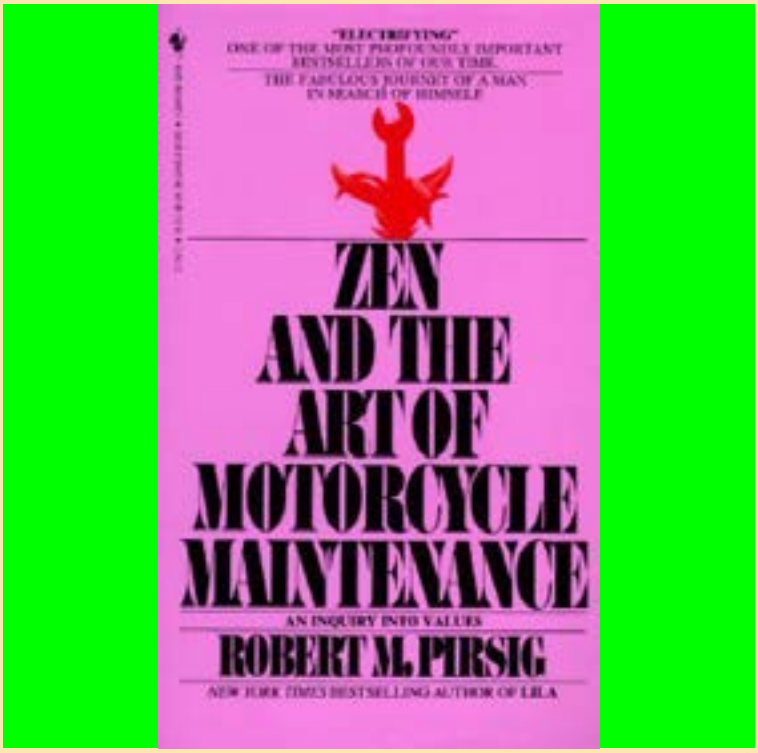
And then there's the moment we all chase: the signal. Faint, then strong. A voice from across the country—or the world—coming in on 20 meters like it was next door. You respond. You connect. And for that brief window of propagation and presence, you are exactly where you're meant to be.

That's Quality. That's Zen.

So the next time you're in your shack, coax wrapped just so, waterfall dancing, and the band conditions suddenly come alive—take a breath. You're not just operating. You're practicing a craft that links people, places, and time. You're part of a tradition that values not just communication, but the care that makes it possible.

Tighten that connector. Adjust that tuner. And listen, really listen.

The signal is always out there.



The Squirrel Cage

By Caryn, KD2GUT

When a group of radio operators begin calling "***CQ International Dog Day***" in August, they're not just looking for QSOs.

They are in search of people who have room in their hearts to help the abandoned, abused and homeless dogs around the world in whatever way they can. These dozen or so special event operators know the power of rescue because they've been deeply involved in it themselves: Hanz YL3JD and his wife opened their home – first in Holland, later in Latvia – and have given needy dogs a second chance at a new family. In Australia, and later in Germany, Ed DD5LP and his wife discovered – several times – that their household was incomplete without canine company. Many of the other operators' rescued dogs were adopted after hard lives on the street; others were at the pound, hours away from being euthanized.

International Dog Day (and in the US, National Dog Day) is August 26 every year. The tradition was created by US pet advocate Colleen Paige as a day to recognise the needs of society's unwanted and cast-off dogs and affirm the commitment to adopt, donate or raise awareness of their special needs.

Hanz amplified the original message by adding an amateur radio component in 2022, taking the special-event callsign YL1DOG and operating as a single station. The following year he was joined by Chris, G5VZ, and David, G4YVM, in the UK. By 2024, a team of eight US rescue-dog advocates, operating as K2D, had come on board. This year is the biggest yet, as hams in Germany and other countries run with the pack. All operators will be looking to hear from dog-lovers and supporters in either CW or SSB on HF, on VHF/UHF simplex, or via DMR and Echolink.

The international team has added incentive certificates, including special endorsements such as "Full Kennel," the equivalent of a clean sweep. Their website, dogdayradio.org, is updated regularly with the operators' special-event callsigns, their operating schedules, a chance to meet the dogs who inspired them and hear their stories.

In case you are wondering where the cats are – well, they're running ahead of the dogs! International Cat Day will be operating as a separate event, two weeks before the Dog Day operators get on the air – and they will be carrying a similar message for cat-rescue awareness. See catdayradio.org for details.

For live updates of both events, to search for the different callsigns, to see the operators' schedules or to apply for and download award certificates visit these links when they become available:

https://hamlog.online/icd

https://hamlog.online/idd

Meanwhile, be aware that all special-event operators will be working like dogs – and why not? – Because they want to hear and share as many rescue stories as they can.

ARMED FORCES DAY AT THE AIR POWER MUSEUM


ThinkPad

Frequency, Wavelength & Phase

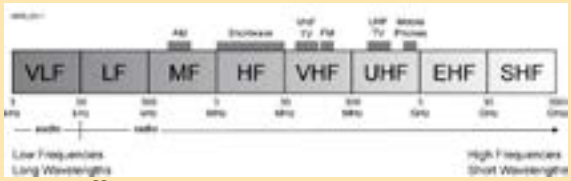
By Kevin, AB2ZI

Light is a radio wave. Understanding this one statement is a key to understanding radio frequency (RF) signals and how their behavior and characteristics change with frequency.

Thermal radiation (heat) is emitted by all objects with a temperature above absolute zero due to the thermal motion of charged particles.

Electromagnetic waves propagate (move) at the speed of light.

The electromagnetic spectrum stretches from the lowest energy levels, and therefore the lowest frequencies, all the way up to Gamma rays. Think of the term 'radioactive' when talking about fuel for nuclear reactors or certain elements.

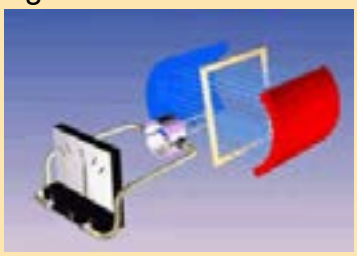


The only difference between that FM radio station in your car and light is the frequency. Our eyes are radio receivers tuned to the wavelength of what we refer to as visible light. The visible spectrum is normally referred to by its wavelengths from 380 - 780nM which is the 380 to 750THz (terahertz) range.

The waves we are going to be concerning ourselves with as hams, will be the ones in the Low Frequency (30kHz – 300kHz) range up through the UHF (300MHz – 3GHz), though allocations all us above the EHF (extremely high frequency) rage extending to 300GHz and beyond.

A wave is produced by an oscillation, which is a movement back-and-forth. Alternating current in your home is an example of this. Many people are aware that our household power is something like 110 or 120 volts AC. AC stands for alternating current. The generators that produce this power do so by rotating a coil inside a pair of magnets. The power generated changes direction because of how induction works: a moving conductor that passes through a magnetic field, say from left to right, will produce a current in one direction and when its rotation takes it back through the field from right to left it moves in the opposite.

In this arrangement the current builds in one

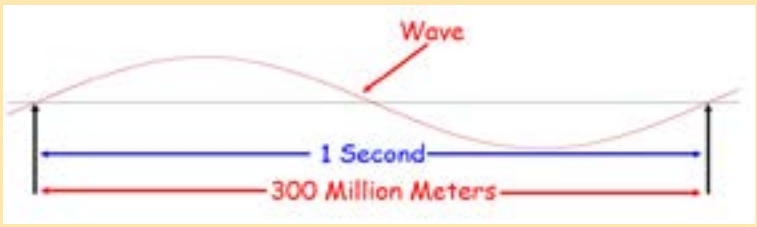


direction, peaks, falls off to zero and then continues around this time the opposite, or negative, direction. This produces what is referred to as a sine wave.

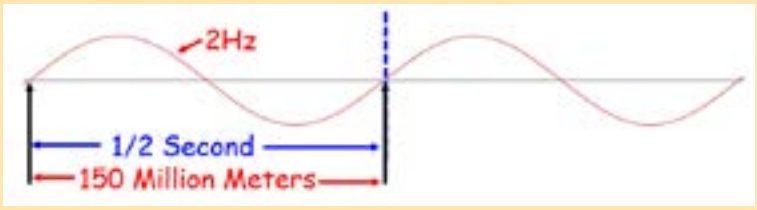
The number of times in one second that the loop makes a complete circle, or cycle, is the frequency of that wave and we refer to the number of cycles per second in the units Hertz (H). E.g., 60 cycles per second is 60Hz (60 Hertz).

As mentioned earlier, these waves move at the speed of light (c) which is 186,282 miles per second in a vacuum, or approximately 300 million meters per second.

So if we make one complete rotation in one second we would have a 1Hz wave which would have traveled 300 million meters in the second since it began it journey. Therefore the wavelength of a signal at a frequency of 1Hz is 300 million meters (or 186,282 miles).

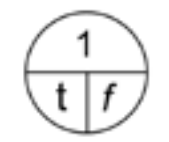


We can instantly see this relationship to frequency by doubling to 2Hz:



We see that at 2 cycles per second, or 2Hz, the wave completes one complete cycle in only 1/2 a second and only travels 150 million meters, which is its wavelength.

The time it takes to complete one cycle is called the wave's period and is represented by the letter t and is in seconds. You can find a frequency's period taking the reciprocal of the frequency, and vice versa. To find the frequency (if you know time) take the reciprocal. Here's a formula circle for you:

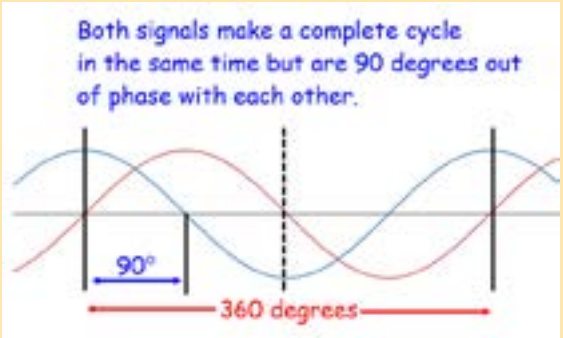


As hams, much of our operating is in the megahertz range and so a formula to remember to find the wavelength in meters of a particular frequency is 300 divided by the frequency in megahertz. We can put this into a formula transcription circle where like these (note: 984/f in MHz equals wavelength in feet.) Also note that lambda (λ) is the symbol for wavelength.

Here's another pro tip for you. In the books and on the US Amateur Radio Bands chart I hand out in class, you will notice that all the bands are referred to by their wavelength with the frequency in parenthesis: 20 meters (14Mhz), 80 meters (3.5MHz), etc., so practice calculating wavelength and frequency and use the chart to check yourself.

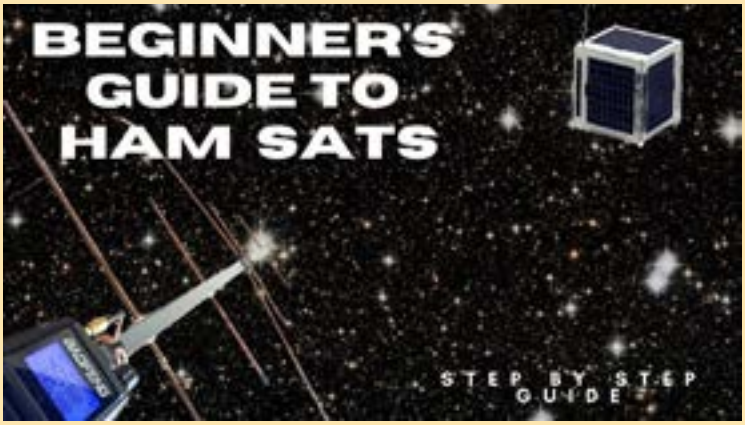
Mental math tip: A meter is a little more than a yard (about 3-1/2 inches longer) so you can convert to feet by simply multiplying by 3 to get you into the ballpark. This comes in handy if you're putting up a 20 meter dipole and want to know how high 1/2 wave is. 20 meters is the length of the whole wave, 1/2 of 20 meters is 10 meters and 10 x 3 is 30 feet. So you know your antenna needs to be around 30 feet or so high.

One of the next principles you need to understand is phase relationships. If you have 2 identical signals (same frequency) but one of them starts earlier or later than the other, then there will be a difference between those signals measured in degrees.

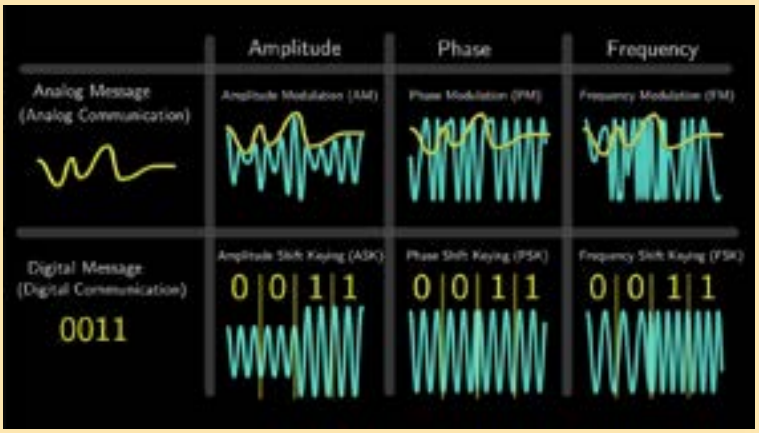


AB2ZI's YouTube Pics

Balanced is Balanced and Unbalanced Isn't



Your First Satellite Contact, Easy and Inexpensive [A Beginner's Guide]



All Modulation Types Explained in 3 Minutes

ARES/ RACES Information

Div. 1—Town of Babylon ARES/RACES
Net: 440.850/R, Sundays 8:45 AM
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, ***Huntingtonnyaresraces.org/***

Div. 3—Town of Islip ARES/RACES
Wednesday 8:30 PM
Net: 147.345 +600/PL 100.0
EC/RO: Philip Jacobs, W2UV, 631-838-2500
Website: ***k2irg.org***

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: Ed Wilson, N2XDD, 631-484-8826

Div. 6—Riverhead ARES/RACES
EC/RO: Steve Casko, 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:

Mon 2100 Local, 145.330/R (136. 5PL)

Alt. Frequency—146.820 (136.5 PL)

New York State RACES Net (HF)

2025 VE Sessions

- ~~January 25th~~
- ~~February 22nd~~
- ~~March 29th~~
- ~~April 26th~~
- ~~May 31st~~
- June 21st
- July 26th
- August 30th
- September 27th
- October 25th
- November 29th
- December 27th

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. Nonprogrammable calculators are allowed. The exam fee is $15 payable by cash or a check made out to "ARRL VEC."

IMPORTANT!

If you do NOT already have an FCC FRN (Federal Registration Number) you MUST Visit the FCC Universal Licensing page to register for an FRN to use on the paperwork.

Club Name Badges

Club name badges are available from ***The Sign Man (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"

GSBARC Repeaters

LINKED REPEATERS

146.685 W2GSB -shift 110.9 Hz Encode - 127.3 or CSQ decode

146.685 -shift 127.3 Encode/ Decode (south — receiver site linked to 146.685)

445.725 W2TOB -shift 110.9 PL Enc/Dec *Note: No Longer DSTAR*

438.475 - shift 136.5 Hz Encode/ Decode

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

223.860 -shift 156.7 PL Enc/Dec Local use

440.850 W2GSB + shift 110.9 PL ***Encode, 127.3 PL Decode (NEW)***

446.775 KB2UR -shift 110.9 PL Enc/Dec Fusion Steerable

927.3125 W2YMM -shift D606 Enc/ Dec

440.250 W2TOB/B + shift DSTAR REF020A Babylon

147.255 W2TOB/C + shift DSTAR Steerable

Echolink W2GSB-R
AllStar ACESS NODE 465710 affiliated repeater

KB2UQK 449.23750 - SHIFT 114.8 ENCODE / DECODE

Portable Event Repeater (Trailer): KB2UR 446.3875 - 110.9 Enc/Dec W2GSB TRP

Club Apparel

Want a shirt, jacket, hat, sweatshirt or T-shirt with a Great South Bay club logo?

We use ***VIKING*** *(previously Mr. Shirt)* located at 80 East Montauk Hwy. in Lindenhurst. We now have a group order page.

Click Here to Place an Order

Now you can get color matched backgrounds on your logo too. Check them out...