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At Last! Our 220 Repeater Finds a Home!

Following more than two years of looking for a home, EGARA's 220 mhz repeater system finally found one, thanks to the efforts of club Secretary Steve VanSickle, WB2HPR, Hudson Valley Community College (HVCC), and Bob Isby, K2RHI, who owns Algonquin Communications. The newest addition to the club's repeater family has been installed atop a tower on the college's campus in Troy, where it is now co-located with the 145.110 mhz repeater operated by the club's President Emeritus, Tom Scorsone, KC2FCP.

The new repeater is operating on 224.800 mhz, with PL 94.8 used for access. Hudson Valley offered the site after the club was unable to secure a location on the Helderberg Mountains, where it sought space at the facilities of several local broadcasting companies. During the installation of the 220 machine, the antenna for the 145.110 repeater was also replaced and moved to the tower, raising it higher for better performance.

"I happened to be speaking with Bob and explaining our difficulties in finding a good location for our 220 machine," Steve recalled. "He said he might have a solution and quickly followed through to get permission to add a second repeater at the college location. He also offered to replace and relocate the 110 machine's antenna that had been damaged over the years by wind and severe weather."

(continued on page 2)



Bob Isby, K2RHI, raises the new 220 mhz repeater antenna on the HVCC tower

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Club VP Nick Field, KD2JCR, Steps Down

Citing the time demands of work and family, EGARA Vice President Nick Field, KD2JCR, has decided to resign. Nick was serving his second year in the position.

"It is with regret that I step down. As of now I just can't make the days longer to accommodate everything, Nick said.

Club President Bryan Jackson, W2RBJ, thanked Nick for his service and expressed hope that he would be able to run again in the future when he would have more time to devote to the club.

Club officers will meet to discuss the vacancy and what action to take. The next regular election of officers and board members is set for next April.



Nick working Field Day in 2019

Next Membership Meeting - November 10, 2021 - Masonic Lodge at 7 pm

220 Repeater Finally Gets a Home...

On Sunday afternoon, October 24th, Isby put out the call that he was ready to get the project underway and could use a hand. Club Treasurer Don Mayotte, KB2CDX, and President Bryan Jackson, W2RBJ, answered the call and arrived at the HVCC campus to provide the needed assistance.



Bob and Don prepare to remove the old 145.110 repeater antenna damaged by years of wind and weather

The first order of business was to remove the old antenna for the 145.110 repeater, which was dangling at an angle after being damaged by high winds and severe weather over the years. An inspection quickly found that the RF connector was bent and the coax feed line had been kinked and likely compromised. In addition, the old aluminum TV mast used for the original install was badly corroded. The old gear was removed and fresh coax was prepared with new connectors. The feed lines were then staged for installation on the tower.

Next, the new repeater antennas were hoisted aloft by Bob with Don guiding them safely from the base of the tower. The 110 antenna was mounted and installed first, followed by the new four-bay antenna for the 220 machine -- a brand new BridgeCom repeater which had been graciously purchased for club use by Steve.

The long shadows of the Fall afternoon had arrived by the time the antenna and feed line work were completed, and the trio turned its attention to the installation of the repeaters themselves. A new, taller equipment rack was provided by Bob, allowing both repeaters to be conveniently housed in a single cabinet. The 110 machine was re-installed quickly, but time had run out to get the 220 unit in place. So, that would be left for another day.

On the following Saturday evening, October 30th, the team returned to the HVCC campus to complete the install of the 220 machine, including a check of the system for proper operation. That task went smoothly thanks to the prep work that had been done by Steve, who had first assembled all of the repeater's components at his home to ensure everything functioned as planned.

Within two hours of arriving at the site, the new repeater, its duplexer, watt meter and coax were all mounted in the upper half of the rack above the existing 110 machine. Bob's test gear quickly showed that both repeaters were operating as expected, with nearly zero reflected power -- indicating the new antennas were perfectly matched to their respective rigs. A quick call went out to Steve at his home in Troy by Don over his 220 HT radio confirming that a good signal was coming from the new machine. The 110 repeater's antenna performance had also drawn favorable signal reports after it had been replaced and relocated.



Standing in front of the new repeater set up, Bob gets a big handshake from Bryan and an EGARA club hat as thanks for a job well done

The entire installation went smoothly thanks to Bob's many years of professional experience in tower and antenna work. As the owner of Algonquin Communications, he regularly provides service to broadcasters, cellular phone providers and other communication companies throughout the region. In addition, he offers to assist Amateur Radio organizations in the Capital Region.

"I'm lucky that I enjoy Amateur Radio as a hobby just as much as I do my regular job," Bob said. "I'm really fortunate to be happy whether I'm at work or at play."



Bob and Don check the new machine for proper operation. Nearly zero SWR at full power!

"Our club owes a huge thank you to Bob for everything he's done to help us finally get our 220 machine on the air," Bryan said. "After two years of trying to find a site, I was becoming convinced it might never happen. We also owe a debt of gratitude to Steve VanSickle for connecting with Bob to make it happen. Now, I'm looking forward to catching up with everyone on 224,800!"

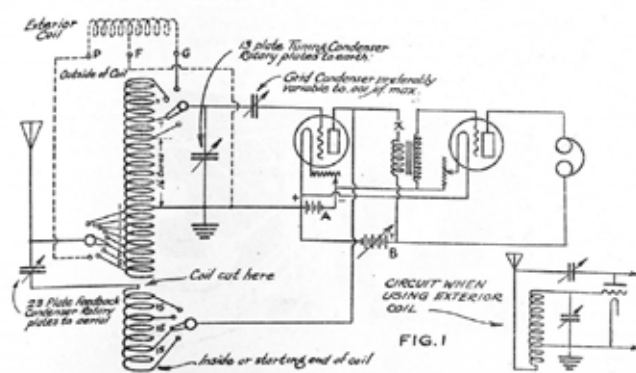
The History of Ham Radio: New Circuits

Chris Codella, W2PA, author, John Pelham, W1JA, editor, Phil Johnson, W2SQ, editor

(Editor's note: By special arrangement with the authors, Sidebands is pleased to present this multi-part series on the history of ham radio. Subsequent chapters will be published in future monthly editions of the newsletter)

Though radio had changed rapidly and radically over the past decade, that change only accelerated in the early twenties. New regulations, the broadcast boom, the abandonment of spark for CW, and new transmitter, receiver, and antenna designs were all happening simultaneously. No single one drove the others, but all together they advanced the radio art in a self-supporting feedback loop.

Since publication of John Reinartz's (1QP or "1-Kewpie") tuner in 1921, hundreds of hams had used it on CW with good results, judging by the mail received at the League since then. Prompted by its popularity, in 1922 Reinartz further simplified its construction and operation.



The Reinartz tuner



John Reinartz
1QP

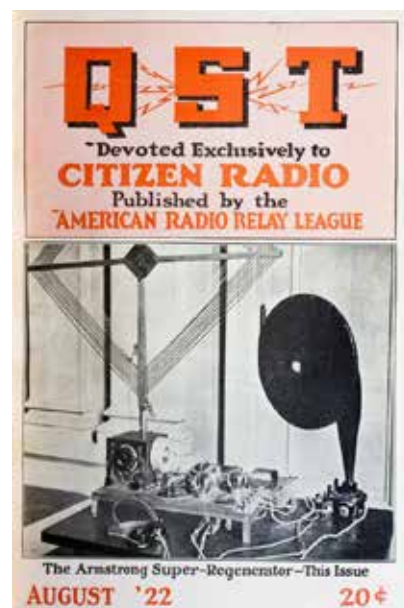
This new version eliminated the moving inductors completely, combining all into a single, tightly coupled set of inductors on one form with switched taps for antenna tuning and regeneration feedback.

The circuit could be tuned from about 130 up to 370 meters, "thus taking in the concerts nicely," he pointed out, in addition to being a good, stable CW receiver. And it was extensible. You could add more inductance via external binding posts to extend the tuning range to longer wavelengths. Add an audio amplifier stage and you'd have a complete receiver, with the headphones connected directly in the plate circuit!

Rumors of a new receiver design by Edwin Armstrong also surfaced around this time. The regenerative detector, which he invented while in college, was now at the heart of most receivers, including Reinartz's, due to its simple and economical design. Furthermore, it was the principal circuit to finally make widespread practical use of the vacuum tube so many years after its original invention.

Speaking before an IRE audience on 7 June 1922, Armstrong presented his new design, the super-regenerative receiver, which built upon his simple, earlier idea. It promised to produce signals far stronger than its predecessor, and could do with only two tubes what a superheterodyne receiver did with ten. On 28 June he demonstrated his prototype to the R.C.A. in front of an audience that overflowed the lecture hall at Columbia, due mostly to the intense interest among broadcast listeners. ARRL secretary Kenneth Warner attended the lecture and summarized it for QST—the August cover featured a photograph of it.

Armstrong's basic idea was clever and simple yet non-obvious—the essence of invention. The sensitivity of a regenerative receiver was limited by how close to the oscillation point you could adjust it. The closer you got the stronger the input signal would be amplified. But operating on the edge of criticality sacrificed stability. Adjusting a regen receiver ever closer to the oscillation point was an exercise in frustration. Once the circuit "flopped" into oscillation, it would stay there. Creeping up to the edge, you'd be lured in by ever increasing sensitivity only to fall off the cliff if you went a bit too far. Of course, an oscillating regenerative detector was useful too—in fact, it made receiving unmodulated CW possible. But the highest sensitivity existed tantalizingly, unreachably, just before that invisible cliff.



-continued on page 4-

History of Amateur Radio...

Armstrong discovered that even when a regenerative detector was adjusted into oscillation, it took a short but finite time for the tube to actually begin oscillating. He found that if you could yank it back into the non-oscillating state quickly enough you could get a short burst of high amplification without oscillations. If you did this over and over very rapidly you could have your cake (high sensitivity) and eat it, too (avoid oscillation). Using a term borrowed from the spark days, this yanking-back was called quenching the circuit. Armstrong's innovation was to do this automatically using another oscillator, which would repeatedly push the regenerative circuit into and out of oscillation faster than any human could do it, at a rate called the variation frequency.

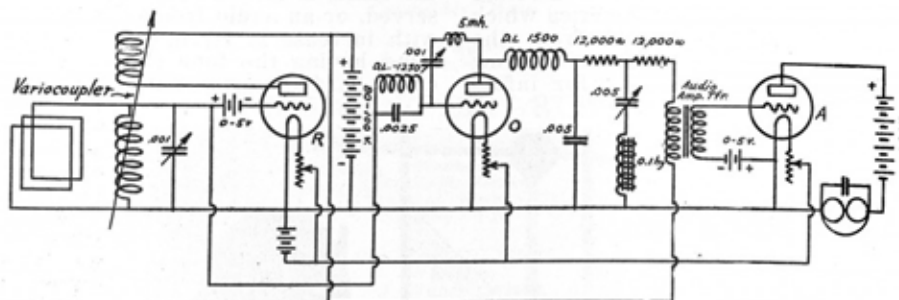
The variation frequency must be higher than normal audio frequencies (referred to as super-audible) for phone, modulated CW and spark—modes for which reproducing the original modulation is important. To get an additional increase in signal strength, the variation frequency could be an audio frequency if the operator did not mind changing the characteristic sound of the incoming signal “into a peculiar hard twang,” as Warner described it. For CW, a super-audible frequency could be used if combined with a separate beat frequency oscillator to produce an audible tone. Or an audio frequency could be used which would result in all CW signals having the same tone—not good under crowded conditions.

On the evening of his lecture, Armstrong's audience of broadcast listeners was primarily interested in receiving phone transmissions. So he concentrated his presentation on the circuit most useful for that mode—one in which detection occurs in the regenerative amplifier, and a super-audible variation frequency is used followed by one stage of audio amplification. This was the receiver pictured on the cover of QST. He demonstrated it for the crowd at Columbia, by receiving music from WJZ on an indoor loop antenna with enough signal to drive a loudspeaker. Since many in the audience were unfamiliar with loudspeakers, he hooked up a pair of headphones to better impress them with the magnitude of the signal. When he did so, "it almost tore up the phones; they clicked and rattled and the diaframs hammered on the magnets so hard that it sounded like a Western Union sounder instead of a lady doing her best to sing," complained Warner.

Armstrong then demonstrated a version of the circuit for the amateurs, in which a single regenerator tube also produced its own variation signal. Since either an audible or super-audible variation frequency could be selected, the receiver was useful with all modes. If used with a super-audible variation frequency, the detector stage became unnecessary, reducing the entire circuit to a single tube—one as capable as a six-tube superheterodyne receiver, according to Armstrong. Operation was simple, once the receiver was suitably adjusted, with only a small subset of its controls necessary to change the frequency of operation. He proceeded to demonstrate the tradeoff between signal strength and audio quality by switching between the two modes using the same circuit, again badly abusing a set of headphones to bring across the magnitude of the signal.

Armstrong recommended against using this receiver with an aerial, meaning an outdoor antenna, since the extra input signal was unnecessary. For one thing, signals build up towards infinity, limited only by the tube capability. More importantly, though, when not adjusted properly the receiver would radiate back through the aerial and cause interference.

Particularly impressive was the fact that the super-regenerative receiver worked better at shorter wavelengths than long—just the opposite of other designs.



Armstrong's super-regenerative circuit

Doing her part to advance the art, M. Adaire Garmhausen, 3BCK, made another appearance in QST as author of “The Perfect Aerial.”

She warned readers at the outset that, “This is a very technical article. It is so technical that anyone with less than three degrees shouldn’t even read the title.”

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On the Beam

News & Notes

EGARA Reaches a New Milestone in Membership



With the addition of Santos Andres, NK2R, EGARA membership has now reached a total of 70. Santos -- who holds an Extra Class ticket -- is a resident of Manhattan, but also travels to the Capital Region to spend time in Greene County. He's also our "Shack of the Month" on page 15.

The club now has several "out of town" members, including Warren "Bud" Shepard, W2BUD, and Joe Ostering, N2CJF, both who reside in Connecticut, Dan Weite, N2ZNH, who calls Oneonta home, and Shelly Perry, WB2DGE, who lives in South Carolina.

The club also boasts three overseas members, Jean-Claude Angebaud, F1AKE, and Didier Paris, F5MNH, who are both in France, and Martyn Griffiths, G6IVC, a resident of the United Kingdom.

Golden Globe Sailing Race Entrants Banned from Using Amateur Radio

The use of amateur radio by participants in the 2022 - 23 Golden Globe Race (GGR) -- an around-the-world sailing competition -- has been banned. Race organizers put the restriction in place because of unlicensed use of amateur radio equipment in the 2018 - 19 event. In that race, Estonian skipper Uku Randmaa, ES1UKU, was penalized after seeking weather routing (the best route according to wind and weather conditions) via ham radio. While he escaped disqualification, he did receive a 72-hour penalty.

The rules make clear that, "Any proven breach of International radio telecommunication regulations, such as transmitting on illegal maritime frequencies, may result in a time penalty. Ham Radio transmissions are specifically banned."

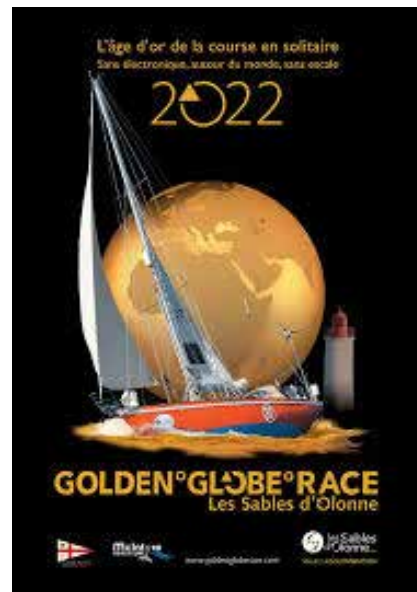
According to reports, the change caused concern within the race community, with some of the 2018 entrants highlighting difficulties in picking up Global Maritime Distress and Safety System (GMDSS) frequencies in the Southern Ocean due to the shrinking of the broadcasting network as more mariners rely on satellite communication.

The approximately 30,000-mile GGR solo circumnavigation starts and ends in Les Sables-d'Olonne, France. It has four rendezvous "gates" along the way.

"This is a retro race with skippers restricted to using a sextant [a navigation instrument used to measure altitudes of celestial bodies], paper charts, and wind-up chronometers, just as Sir Robin Knox-Johnston used in the first Sunday Times Golden Globe Race 50 years ago," Race Chairman Don McIntyre has explained.

In the 2018 race, some GGR skippers who operated on ham radio frequencies using bogus call signs were asked to stop operating.

GGR monitors all severe weather with winds over 40 knots and, if appropriate, provides both forecasting and routing information to assist entrants in sailing safely.



EGARA October Meeting Minutes

- The October 13, 2021 meeting of the EGARA was called to order at 7:01 PM by President Bryan Jackson, W2RBJ. A total of 17 members attended at the Masonic Temple. A round-robin allowed everyone to introduce themselves.
- Minutes of previous meetings can be found on the EGARA.club website, as a part of the archived Sidebands newsletters. The Treasurer's report was given by Don Mayotte, KB2CDX. No VP report was given.
- A raffle of various tools was held – several members won prizes.
- A “Thank-You” pizza party will be held at Mercato's Restaurant on October 27 – in appreciation for the Hamfest volunteers' hard work.
- Pumpkin patrol will be conducted this coming Halloween and Halloween eve. Volunteers are needed for the Taconic spur bridges of the Thruway. Bryan Jackson will email contact information for prospective volunteers.
- A VE session is being planned for December 4th at the Masonic Temple.
- The Masonic Lodge will be remediating mold issues in the building's basement – help will be needed to move some of the club equipment to temporary locations.
- Pictures of the Hamshack of the Month are being sought. Contact Bryan Jackson for inclusion in the newsletter. Also, items for sale or swap can be listed in the Sidebands classifieds.
- The annual Christmas Party is being planned for December.
- Plans for a special event station commemorating WGY's 100th year anniversary are being finalized.
- The main speaker was Mike Shanahan, WO2H, who is the Rensselaer County RACES Director. Mike updated the EGARA membership on latest means of traffic handling through the various RACES WINLINK systems. RACES traffic nets are conducted weekly on the 1st, 2nd, and 4th Thursdays at 7:30 PM. More information can be obtained through K2REN.com or WO2H@ARRL.NET.
- Pizza and hot and cold drinks were provided to the club members.
- The meeting was concluded at 7:54 PM.

Submitted by Steve VanSickle, WB2HPR - Secretary

History of Amateur Radio...

Having spent an entire two weeks of “spare time research,” she now asserted her authority to write about optimizing the aerial.

Selectivity was all about being exceedingly selective when purchasing wire, she advised, subjecting it to various tests. Insulators must be tuned ones, bottle necks being particularly desirable but only those in which the bottle had contained the “real stuff.” The shape mattered little, so one might as well be artistic about it. The ground system should be regenerative, unless it was properly heterodyned.

A lake or other body of water would do nicely and if it seems hard to solder to a lake, she explained, “this is a technical article and you cannot expect to understand everything you read in a technical article.”

Connecting to the receiver is very important; specifically, “It is an accepted fact that if the positive side of the aerial be connected to the binding post marked ‘ground’ interference will be greatly reduced. The positive side of an aerial is the side you are positive is the negative.”

Armstrong may not have been aware of Garmhausen’s perfected aerial when he spoke against using them with his new receiver.



VE Exams Getting Underway Again

After its regular schedule of licensing exam sessions was disrupted by the pandemic, EGARA will begin holding them once again beginning Saturday, December 4th.

The testing session will be held at the East Greenbush Masonic Lodge and begin promptly at 10 am. Exams for all license classes -- Technician, General and Amateur Extra -- will be available.

While walk-ins will be welcome, it is recommended that all applicants make a reservation by sending an email to Bryan Jackson, at: W2RBJ@outlook.com. Applicants will also have to first have an FCC Registration Number (FRN) in order to take their test.

Complete details can be found on the club’s website at: <https://www.egara.club/ve-exams-sessions>.

In 2022, the club hopes to return to offering exams at least three times a year.



Seven Reasons Your Circuit Isn't Working

There is nothing more frustrating than spending many hours on a circuit and when you power it up.....it doesn't work. Here's a check list of the most common problems with experimental circuits -- and the order to try debugging them:

1. *Bad Connection Or No Connection*

You left out a wire or connection. It's easy to do, so double check all connections, and then triple check.

There is a short. After soldering a circuit, use a magnifying glass to check for bad solder joints or frayed wire ends that could be shorting.

In the example pictured to the right, here's a circuit with conductive glue. The circuit was checked a dozen times and it still wouldn't work. An ohmmeter was used to check for shorts and it turned out a thin smear of black conductive glue was shorting out one of the program pins to ground. The black glue on the black Picaxe IC was all but invisible.

A bad solder joint can occur, but it is rare. Impatience--not heating up the joint enough as you solder, can create a high resistance connection. Make sure your solder joints end up clean and shiny. Unless it is a power connection, the additional resistance will usually not be a problem.

2. *Wrong Connection*

You are usually looking at the top of the circuit board and soldering the bottom of the circuit board using a top view schematic. It is easy to get visually turned around. When there is a wrong connection, this can require a new visualization of the situation. To avoid the same perceptual errors, turn the schematic and the circuit board upside down and then check again to see that all the connections are valid. Perceiving from a different point of view can reveal flaws.

3. *Noise In The Circuit Or Near It*

Avoid running inputs next to outputs. Pulsating outputs such as PWM can transfer through induction to inputs and create an erratic circuit. Amplifiers and micro controllers are especially sensitive.

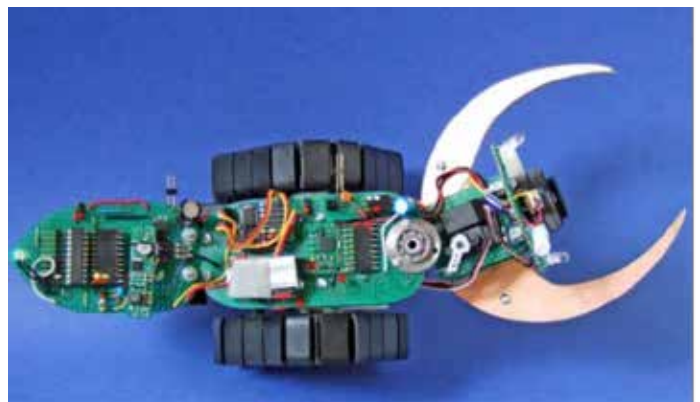
A really long input wire can act as an antenna and pick up noise. In that case you can use a grounded, shielded cable.

For example, a circuit that's working fine on a breadboard can have problems once its mounted to your project. For instance, varying magnetic fields from motors can interfere with micro controllers used to control them. Try moving components away from each other to see if it solves the problem.

In another example, an infrared detector was connected to a micro controller and it worked perfectly on the breadboard. Once connected with everything on board to the robot (pictured to the right), it went crazy. It turned out the sharp infrared detector was creating noise that incapacitated the Picaxe micro controller. A 20 uf decoupling capacitor across the power line, near the infrared detector, solved the problem.

When you can, it is a good idea to have two power supplies that share a common ground. One for the control circuit and another one for the motors, servos, or other noisy loads.

With logic circuits and micro controllers, leaving a floating input can render your circuit useless. Inputs should be grounded or connected to V+ through a 4.7 to 10K ohm resistor. Otherwise the input can act as an antenna and pick up spurious signals from house hold AC or other sources.



Noisy components such as motors can raise havoc with sensitive electronics. Try to move them or use shielding to eliminate issues.

-- continued on page 9 --

Circuit Not Working? Try These Troubleshooting Tips...

4. Bad Power Supply

Make sure your power supply is providing power to the right places and is not being over strained. If the power supply is inadequate to the task, it can drop in voltage and reset micro controllers or make other components erratic. Batteries, under no load, can be measured and have the proper voltage, but when connected to the circuit, the voltage can drop enough to make the circuit useless. Measure battery voltage under the actual circuit load.

A badly filtered power supply can also create noise and cause problems with sensitive circuits. A large value capacitor 20- 200 uf near the power supply can reduce the voltage ripple.

5. Overheating

If the circuit is on and a transistor, resistor, or IC is too hot to touch and you cannot keep your finger on it for several seconds, something is wrong. Such components can normally operate somewhat warm--but not hot. You need a higher wattage resistor or you are overloading your transistor or IC with too much current.

6. Wrong Design Assumptions

With experimental circuits we make a lot of assumptions. Sometime we can get away with it, sometimes not.

A common problem is underestimating the current that small servos and motors require, resulting in power supplies overheating or shutting down.

If size is not an issue, allow more room than you think you need to fit the main components. Packing too tight can make soldering difficult and slow and increase the chance of noise problems between components. An example can be seen in the picture, where it is hard to solder because of trying to fit a remote control on a ring.



It is tempting to design as if the circuit is going to work first time every time. That is rarely the case. A better way is to design with the assumption you will have to debug. Design in connection points such as pins, sockets, or temporary wires that give you access to measure current and voltage on the actual circuit.

7. Bad Components

With today's high quality mass produced electronic components, new components that don't work are extremely rare. However it is fairly easy to overheat a component while soldering and damage it. Transistors, diodes, ICs, and to a lesser degree, resistors and capacitors are susceptible to overheating while soldering.

Circuits, like life, don't always turn out the way we expected. The ability to see clearly where we went wrong and correct for it, is an art form that requires patience and honesty.

Here's a few other tips and tricks you might find useful:

Advanced soldering: <https://www.instructables.com/id/Advanced-Soldering-Fast-and-Easy-Soldering-of-Sur/>

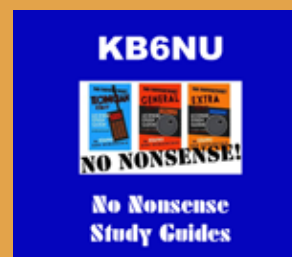
Making fast printed circuit boards: <https://www.instructables.com/id/Picaxe-Projects-1-Making-Fast-Printed-Circuit-Mo/>

Making curved circuit boards: <https://www.instructables.com/id/Curved-Circuit-Art-Make-A-Double-Helix-LED-Lanter/>

Make conductive rubber: <https://www.instructables.com/id/Conductive-Rubber-Make-Touch-Sensitive-Robot-Skin/>

Etching conductive fabric circuits: <https://www.instructables.com/id/Conductive-Fabric-Make-Flexible-Circuits-Using-An/>

Please Support Our EGARA Hamfest Sponsors!



Hamfest Thank You Party Features Pizza and Fun



A dozen EGARA members turned out October 27th for the club's "Hamfest Thank You Party" at Mercato's Restaurant in Schodack. They were among the many who worked hard to make Hamfest 2021 the best ever held by the club!

Bill Hickey, KD2WQN, got a special thank you when he won a \$50 gift certificate for logging software graciously provided by N3FJP Amateur Radio Software.

The company has been a long-time sponsor of EGARA's annual Hamfest and is well known for ham software that makes logging contacts easy and fast.



Need Help? Call on Your Fellow EGARA Members!

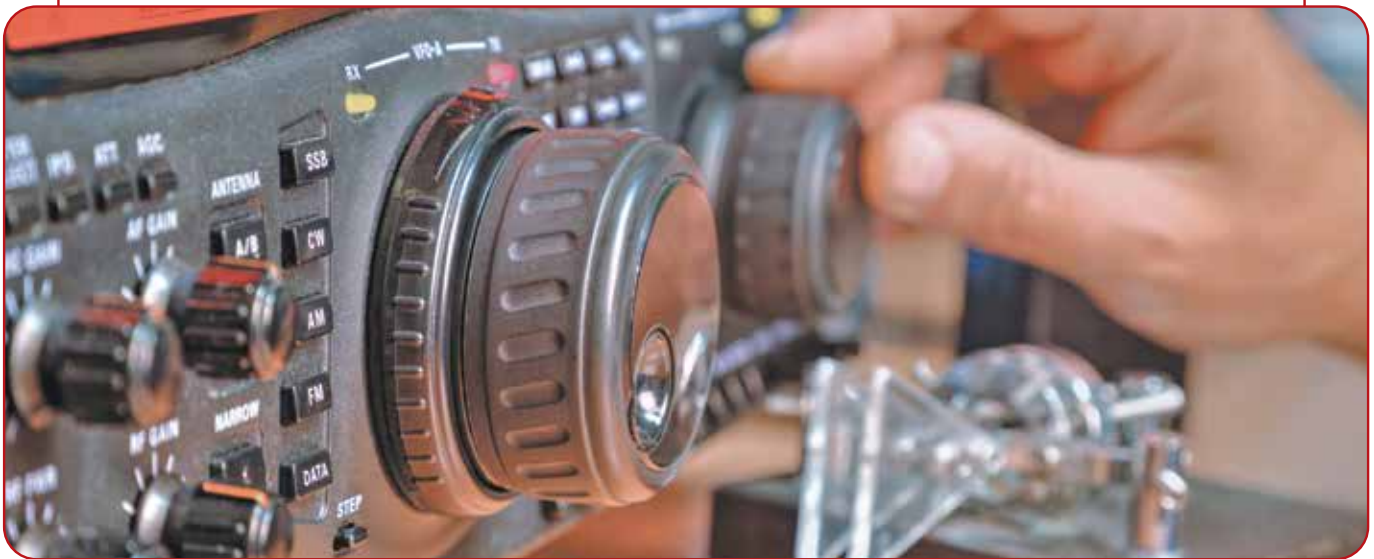
When Joe Ostering, N2CJF, saw a deal on a 40 foot crank up tower at the EGARA Hamfest in August, he knew he had to have it. But how to get it to his QTH in Connecticut?

Joe called on his fellow club members and they got the job done quickly and safely, securing the tower, two antennas, rotors and coax lines to Joe's trailer for transport.

Many thanks to Steve VanSickle, WB2HPR, Don Mayotte, KB2CDX and Bryan Jackson, W2RBJ for lending a hand. Best of all... Joe bought the crew lunch!



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Channel 6 Hit in Sinclair Ransomware Attack



A cyber attack against Sinclair Broadcast Group -- which includes Schenectady's WRGB-TV -- has been linked to one of the most infamous Russian cybergangs, called Evil Corp., according to people familiar with the attack. As a result, many of its stations weren't able to broadcast morning shows, news segments and scheduled NFL games.

The Sinclair hackers used malware called Macaw, a variant of ransomware known as WastedLocker. Both Macaw and WastedLocker were created by Evil Corp., according to people familiar with the attack. Evil Corp. was sanctioned by the U.S. Treasury Department in 2019.

Since then, it has been accused by cyber security experts of re-branding itself in an attempt to avoid the sanctions. People in the U.S. are generally prohibited from engaging in transactions with sanctioned entities, including paying a ransom.

The attack has severely damaged Channel 6's broadcast operations recently -- both on and off the air. The station has been plagued by lengthy interruptions of its programming, as well as a shutdown of its phone and email systems, and access to its business records. In addition to WRGB-TV, Sinclair owns, operates or provides services to 185 television stations in 86 markets

Sinclair said in a statement it began to investigate a potential cyberattack on Oct. 16, and the next day determined that certain servers and workstations were encrypted with ransomware. Data was also taken from the company's network, and Sinclair is trying to determine what was stolen, according to the statement. The company notified law enforcement and engaged legal counsel, a cyber security forensic firm and "other incident response professionals."

The Biden administration has taken steps to crack down on ransomware attacks, which have surged in recent years against businesses, municipalities, schools and even hospitals. This summer's ransomware attack on Colonial Pipeline Co., was tied to Russia-linked groups and it resulted in gasoline supply disruptions and price hikes for consumers.



WA2NYC once again operated a special event station on September 11th to commemorate the 20th anniversary of the terrorist attacks on the World Trade Center in New York City.

Special Event stations were also operated by Amateur Radio groups to observe the attacks on the Pentagon and in Shanksville, Pennsylvania.

The Wireless Association of New York City provided the pictured QSL card to Amateur operators who requested it.

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- New Ham friendly



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Shack of the Month

Santos Andres NK2R / EB4B

Our Shack of the Month is more like “Shacks of the Month” this time around and features EGARA’s newest member, Santos Andres.

He is licensed both as NK2R and EB4B (Spain). His former calls include AH2P, EA4AK and EA1OX. He was first licensed in 1976 as EA1OX (QTH Salamanca, Spain). He loves book publishing, antenna design and DXing. His interests also include astronomy, radioastronomy and magic.

His usual equipment includes a Flex Radio 6700, Arlan Radiosport RS60CF headset with HC4 capsule, BHI noise cancelling, an OM-POWER amplifier, and AD 2 element antenna (Antenna Dinamica). His software includes DXLab, N1MM, Ionoprobe, HamCap and DX Atlas. Santos is definitely a Ham’s Ham and we’re glad to have him as a member!



Let Sidebands feature your shack!
Send your photos to W2RBJ@Outlook.com

CALENDAR

November 10, 2021 - 7 pm - Monthly club meeting - in person at Masonic Lodge. Face masks optional for those who are vaccinated.

November 24, 2021 - 7 pm - EGARA Roundtable on 147.270 repeater

December 4, 2021 - 10 am - FCC Exam Session for all license classes. Masonic Lodge, 710 Columbia Turnpike, East Greenbush, NY. RSVP to W2RBJ@outlook.com.

December 15, 2021 - 7 pm - Annual Christmas Holiday Party, Mosciatello's Restaurant, Route 4, Troy.

Pro Tip: Resolving Hiccup Mode

What is hiccup mode?

On some multiple output power supplies, no load on the primary output channel of a multi-channel power supply is considered a fault condition.



The response of these power supplies to a low load on the primary is to drop into something known as "hiccup mode."

In "hiccup mode" the power supply shuts down, then almost immediately powers back up and checks for a proper load on the primary output. If no load is found, or the load is too low, it shuts down again and the cycle repeats until the proper load is established or power to the supply is cut.

How do I resolve hiccup mode?

To solve this problem, a dummy load can be placed on the primary so the power supply secondaries will work. Regardless of fault response (hiccup or shutdown), powering down the power supply, correcting the fault and starting the supply again will reset the fault detection and normal operation will resume.

Some power supplies also switch into hiccup mode on overload or over-voltage as well. As always, do check the data sheet(s) for complete information.



For Sale...

- **Connect Systems CS 800d** 2m /440 analog/digital DMR mobile asking \$150.00
- **BCA-300** dual band 2m/440 mag mount antenna sam define connector asking \$20.00
- **HYS dual band antenna** 2m/440 nmo mag mount 20' tall asking \$20.00

Contact Walt at: n2wjr07@gmail.com

- **Arrow Dual Band Antenna** - Model 146/437-10 with 3 elements on 2 meters and 7 elements on 70 cm. User manual included. Original list price \$158. Asking \$35.

Contact Bill Leue at: wleuel@nycap.rr.com

- **VIBROPLEX "Bug" semi-automatic key.** Original "PRESENTATION" Model with Gold Plated baseplate escutcheon. Beautiful heavily chromed upper parts, bright red finger pieces, jeweled bearings. Lists for \$350 but you can own this beauty for only \$250 plus postage. In absolutely beautiful condition, this dazzling example of Vibroplex engineering will be supplied in a unique hard-shell protective carrying case.

Contact Steve at: (518) 326-0902 or stevewb2hpr@gmail.com

- **IFR-1100S Service Monitor.** With Spectrum Analyzer and Oscilloscope. Tested and Calibrated last year. AM - FM, CTCSS Generator, In very good condition. \$875.00
- **Yaesu FT-2900 Programing Software** by RT Systems Cable included. used once. Registered and includes password. \$29.00
- **UHF RX Amp**, 1 input 3 outputs. 12V. SO-239s \$10

Contact John at: radiowizz@aol.com

Got stuff to sell, swap, or looking to buy?

List it here for FREE!

Email W2RBJ@outlook.com

The East Greenbush Amateur Radio Association

Organized in 1998, by Bert Bruins, N2FPJ, (SK) and Chris Linck, N2NEH, the East Greenbush Amateur Radio Association, an ARRL affiliate, is committed to providing emergency services, educational programs, and operating resources to amateur radio operators and residents of the Capital Region of New York State. The club station is W2EGB. The club also has several VHF and UHF repeaters open to club members and the public.