



The

GARzette



The Official Newsletter of the Gwinnett Amateur Radio Society

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www.GARS.org

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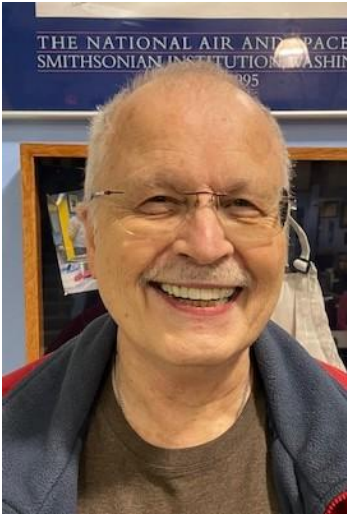
**GARS January Exhibition of the
Technical aspects of Amateur Radio
Held at the Gwinnett County Fairgrounds**

The next TechFest is January 31, 2026

**GARS Meeting: D-STAR – John Davis WB4QDX
Tuesday November 11, 2025 at 7:00 PM**

President's Message

From the President...



There has been a lot going on since our last GArzette in October. There was a Technician HamCram, our Meet the Members contest, and the Stone Mountain hamfest.

The Meet the Members results are listed later on and I enjoyed the weekend getting on the various GARS repeaters and then also with the face-to-face meetings at the GARS meeting. I contacted 8 different members during the contest – so there were more members participating in than the 3 Contest Logs that were submitted. It was a fun contest without any pileups from other contests so it is highly likely it will be done again and from the feedback, probably a longer timespan (maybe a week).

The Technician HamCram was another success even with the additional effort needed by the students to get their FRN and submit their info when the FCC comes back on-line. The shutdown is also affecting and recognitions by the FCC of upgrades made and renewals done during the shutdown. I usually publish the new call signs in the GArzette, but only providing the names this time.

The VE testing team had a busy few

weeks – first was the normal test session, the next weekend was the HamCram, and then the 2 day hamfest the following weekend. So, I want to call out a special thanks to the members of the VE testing team that supported all of these activities.

The Stone Mountain hamfest was a fun time this year. Saturday had a lot of attendees and was able to talk to other groups – like NFARL. While talking to them, both of us were interested in having a GARS and NFARL joint activity. Neither of us had immediate ideas of what it could be and will start doing planning an event next year. By the way, NFARL is having their HamJam this weekend.

GARS has a new chairman for the Dacula Parade Activity. Michael Stewart KR4CVF who will work with Earl as Co-Chairs for next year's Dacula parade. Thanks Michael for stepping up to help GARS continue to be the organization that gives members opportunities to grow their radio interests and personal growth.

The GARS Holiday Party will be here soon. Get your tickets early so the planning for the right number of people can take place. You can sign up on the GARS.org web site.

73,

Bob – K4CQO

Club President / GArZette Editor

GARS Repeaters and Other Communications

| | | |
|--|--|---|
| <p><u>2 Meter Repeaters</u></p> <p>147.075(+) MHz Tone 82.5 147.255(+) MHz Tone 107.2</p> <p><u>1.25 Meter Repeater</u></p> <p>224.580(-) MHz Tone 100.0, 1.6 MHz Offset</p> <p><u>70 Cm Repeaters</u></p> <p>444.525(+) MHz Tone 82.5 442.100(+) MHz Tone 100 442.325(+) MHz Tone 100</p> | <p><u>6 Meter Repeater</u></p> <p>53.110 (-1 MHz) No Tone</p> <p>Other Resources:</p> <p><u>APRS</u></p> <p>144.390 -- 1200 Baud W4GR</p> | <p>6M</p> <p>Operational in Buford 147.075 Operational in Snellville 147.255 Operational in Snellville 224.580 Operational in Grayson 442.100 Operational at Goshen Springs Rd, Norcross 442.325 Operational in Buford 444.525 Operational in Snellville</p> <p>Link remote receivers being added</p> |
|--|--|---|

Notable Web Links

Ham Radio Glossary: <https://noji.com/hamradio/glossary.php> a very comprehensive listing provided by Noji Ratzlaff KNØJI. On his site there is also a lot of information about getting started in ham radio.

Need Help – Let GARS Elmers answer your questions

Send an email to elmers@gars.org with the subject listing the area (like Antennas, Repeaters, Digital, DMR etc.) of your query to get to GARS Elmer volunteers.

About the GARzette

The *GARzette* is the official monthly newsletter of the Gwinnett Amateur Radio Society, serving its members and other persons interested in the advancement of the Amateur Radio art.

Original articles, art, and photos are invited and encouraged. Previously copyrighted submissions cannot be accepted for reprinting unless permission from the appropriate publisher is provided in writing along with the information being submitted. If reprints are from publications allowing their unrestricted use, please include a copy of the printed permission contained in the publication.

If possible, bring your articles to the monthly meeting in Microsoft Word or rich text (.rtf) or text or HTML format or by e-mail to editor@gars.org. Artwork can be accepted in most any graphics format and can be submitted via e-mail to the same address. Alternate means of submittal can be arranged when necessary.

In keeping with the Amateur Radio spirit, permission is hereby granted for the reproduction of The *GARzette* articles by other Amateur Radio club newsletters provided that proper credit is given to the individual author and *The GARzette*.

The GARzette is published each month with the assistance of Karen KI4HPP and Kyle W4KDA who print copies for distribution at meetings, etc. and Dave Bruse, W4DTR, who distributes the newsletter electronically.

Deadline for submissions is the 28th of each month for inclusion in the following month's issue. For additional information view our Website at: <http://www.gars.org> [PS— Articles to publish in the *GARzette*, either written by GARS members or published elsewhere, are always welcome. —Ed.]
Newsletter Email: editor@gars.org Editor: Bob Hoffmann, K4CQO

GARS Meetings & Workshops

GARS Meetings and Workshops are held in-person at the EAA 690 Hangar, 690 Airport Rd, Lawrenceville, GA 30046.

Meetings and Workshops are OPEN to all, feel free to share your invite with others.

When GARS meetings are available on **Zoom** the **login** info will be posted to <http://www.gars.org> prior to the meeting. Members are able to attend the GARS Executive Zoom Meeting on the 1st Tuesday of the month – send an email to the GARS President (president@gars.org) for information to attend.

GARS Meetings Schedule (second Tuesday @ 7:00 PM): (these are the presentations)

- November 11 – D-STAR – John Davis WB4QDX
- December - No Meeting - Holiday Party

Workshop Schedule (third Tuesday @ 7:00 PM): (these are the Hands-on Workshops)

- November 18 – D-STAR – John Davis WB4QDX
- December - No Meeting – enjoy the holiday season

GARS Meeting – November 12, 2025 D-Star – John Davis

John has been instrumental in D-Star for years. He has given many presentations about D-Star over the years. His last GARS D-Star presentation was in October 2018 and for all those with equipment that supports D-Star, this will be an presentation to understand what you can do with your equipment and in general how this part of ham radio works.

GARS Workshop – November 19, 2025

GARS workshops provide further information about the presentation given the week before on a one-on-one basis with the various presenters and there are also Elmers present on a variety of subjects to help with any questions you may have about ham radio – including help you're your equipment that you can bring in.

Elmers are always present at the GARS Workshops. Feel free to bring your questions to the Workshop. If your project is small enough to bring to the meeting, let us know in advance so we can bring tools, test gear, etc.

GARS would like to thank Kevin Scott K4GTR for his coordination of the various presenters on their favorite web site and web sites members use – like for site and area elevations.



GARS Happenings

20 Years ago in the November 2005 GARzette:

- Steve Back was doing JOTA 20 years ago – see his article about it
- 20 years ago hurricane Katrina hit and there is a good article about hams helping with communication that was whipped out in Louisiana
- There are links and information to get training for ARES / FEMA that still work but go to a more general page
- There is an article about ham radio on the ISS and having school group contacts – something still going on thanks to our Education Chair Ralph KJ4CNC



You can always browse the GARzette archive at <http://www.gars.org/newsletters>. 73, Bob, K4CQO, GARzette Editor

Health and Wellbeing – Sandy Jackson, KJ4DRO

Look for this resource on [Email \(https://gars.org/contact/\)](https://gars.org/contact/) and use it as a means to convey information about a GARS family member or Silent Key notification.

Net Managers Corner

Monday Night 2 Meter “Want, Swap, Sell, and Information Net”

GARS NEEDS MEMBERS TO SERVE AS NET CONTROL STATIONS!

GARS is a great Amateur Radio service club with the membership and awards to prove it. Our club is very busy and active, and we use the Monday night net to get timely information out to our members. Weekly participation is needed to make our net function well. There is only a small group of very dedicated people who make the net happen each week, and we need more members to volunteer to serve as Net Control Stations (NCS) on a rotating basis.

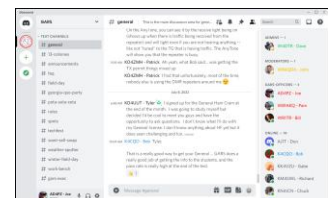
Out of almost 300 members, there are only five operators who serve as the NCS for the GARS net every Monday night. In no particular order, they are:

Ray – N4GYN David – KA4KKF Kevin – W4KIB Bill - WD4AMC Chuck – KK4TKJ Ed – W4BSR

As GARS Net Manager (Chuck KK4TKJ), I would like to have more volunteers to fill NCS positions. I do plan and post the schedule months in advance. Any conditions will be accommodated that you as a rotating NCS need to place on the scheduling of your duties. If your plans change, I can make adjustments for the schedule to work, and I will make those changes happen as soon as I am notified of a problem. As Net Manager, I also send out reminders each week to let the NCS scheduled know he or she is NCS for the next Monday night net. In short, serving as a rotating NCS is a small duty but a great contribution to the club. The “Want, Swap, Sell Information Net” begins promptly at 19:30 every Monday night and runs about 30 minutes. As a scheduled NCS, you will request the assistance of a volunteer alternate NCS each time you have Net Control. Your simple duties will be to tune in to the GARS repeater, read the script, take a few notes and forward the information to me for record keeping.

Please lend a hand and contact (Chuck) via Email ([Click Here to Email our Net Manager](#)) to help support the effort that makes GARS the great club that it is. See you on the Nets!

Don't forget about our Discord utility for GARS announcements, news, activity spotting and more. See <http://www.gars.org> top of the home page. This is a sample of Discord. →



Meet the Members Contest – Results

This was a GARS contest aimed at using the GARS repeaters and getting GARS members to make contacts with other members. Below are the results of the log entries that were provided:

Here are the results of the Meet the Members contest:

Joseph KQ4YBT - 34 points
Bob K4CQO - 26 points
David KA4KKF - 9 points

There were only 3 logs provided. Hats to the ones that provided log entries will be presented when ready.

And **Congratulations to Joseph KB4YBT** for getting the highest score!

Upcoming GARS Holiday Party December 6th

Holiday Party

Dec. 6th at 1800(6:00 pm) at the EAA Hangar. We will eat about 1830(6:30 pm). Starting at 1930 (7:30 pm) to about 2100 (9:00 pm), will be games and after a short meeting and presentation of Ham of the Year award and wrap up 2100.

1 Adult \$20.00
2 Adults \$40.00
1 Adult + 1 child \$30.00 USD
2 Adults + 1 child \$50.00
2 Adults + 2 children or more \$60.00

There is no regular meeting in December on the second Tuesday. The next regular meeting for GARS is January, the second Tuesday of the month.

Sign up for the Holiday Party on our web site GARS.org.

GARS and ARES Member: David Adcock KA4KKF

By Richard Kitz – KM4SWL with AI assistance



FIGURE 1 - KA4KKF DAVID ADCOCK AT HIS STATION (PHOTO BY RICHARD KITZ (KM4SWL))

If you've been around GARS for any length of time, chances are you've crossed paths with **David Adcock, KA4KKF**. Licensed since 1979, David has been part of our club family since 1993 — serving in roles from committee helper to **President, Director, and Field Day Chairman**. For him, GARS isn't just about radios; it's about the people you meet, sometimes on the air and sometimes right next door.

Early Days and Inspiration

David's path into amateur radio started in Virginia Beach, where **Lt. Al Bianchi, KG4O (now K4UX)** served as his Elmer. Al pushed him to earn his novice ticket, even giving him the test. Like many of us, David started on CW in the novice bands, working his way to General. His call sign, KA4KKF, has been his one and only.

Station and Operating Style

These days, David's shack is well-equipped with an **Icom IC-7610** for SSB and FT-8, an **Icom 9700** for satellite work, and a Kenwood mobile rig for VHF/UHF. Antennas include an X-50 and X-510 in the trees, a CP-98 on the house, and a hex beam under construction. He admits to breaking down and finally buying an **AA-600 antenna analyzer** — a tool he now treasures.

Operating-wise, David is on the GARS 147.075 repeater most mornings around 7:15 AM, often chatting with W4KDA and N2NKP on the GARS repeater while sipping coffee and checking emails. He's also active on 40m, 10m, and 17m, and recently applied for his **DXCC**.

Service and Contributions

David has been a steady hand in club activities for over three decades. From setup crews in the late '90s to running Field Day as chairman, he's seen it all. He's also been involved in ARES as both operator and trainer, helping others learn the ropes of emergency communications. Along the way, he's lent his talents to club websites and repeater work — proving that service and leadership are as much a part of his amateur radio life as chasing DX.

Memorable Moments

Like most hams, David has a few stories that stand out:

- His **most memorable contact**: working a CW station during the **Moscow Olympics in 1980**.
- His biggest “oops”: spending time on a CW station while unknowingly transmitting into a **Heathkit antenna dummy load**.
- His biggest disaster: a snowstorm in Virginia Beach that collapsed his **three-band quad antenna**, bending his aluminum tower. Not funny at the time, but one for the memory books.

Beyond the Radio

Outside of ham radio, David enjoys **computers and gardening**. His background as a **Navy electronics tech** and later a computer hardware tech has served him well in the hobby. While his family hasn't caught the bug, they enjoy the g.

When asked who he'd most like to have a QSO with from history, David answered simply: **Barry Goldwater**. And if you ever catch him in the shack, you might notice his favorite operating snacks: **chips and apples**.

Words of Wisdom

David's advice to new hams is straightforward: *“Get on the air and have fun. Get involved with your local clubs.”* It's the same philosophy that has made him a fixture in GARS for more than 30 years.

AI and Amateur Radio: Behind the Curtain

By Richard Kitz [KM4SWL] with AI collaboration

Most of us in amateur radio like to know what's inside the black box. Whether it's a tuner, a feedline, or a piece of software, we eventually want to lift the lid and see what makes it tick. So let's do that with Artificial Intelligence.

AI isn't sorcery or secret sauce—it's a remarkably efficient way of putting the sum of prior human knowledge right at your fingertips. What makes it powerful for us hams isn't that it “knows everything,” but that it can find, connect, and explain information faster than any search engine or manual. Here's how the magic actually works—and why it helps you get more done in the shack.

Pattern Recall, Not Mind Reading

Think of AI as a super-charged pattern matcher. It's been trained on billions of pages of technical material, language, and examples—everything from ARRL articles to NASA research papers. When you ask a question, it looks for patterns that match what it has seen before and predicts the next best answer.

That's why it can explain a tricky FT8 sequence or rewrite a confusing paragraph from your station manual—it's recalling and recombining known information at lightning speed. You still provide the judgment; AI just brings the library to your fingertips.

Benefit to Hams: Quick, accurate recall of procedures, concepts, and explanations without paging through every PDF or forum post.

Context and Accessibility

The real breakthrough isn't what AI knows—it's how it talks to you. You can ask it a question the same way you'd ask an Elmer over coffee. It understands context: when you say "my rig won't key DMR," it knows you're talking about radio modes, not customer service chatbots.

It compresses hours of searching into seconds of conversation, giving you answers tuned to your situation and experience level.

Benefit to Hams: Saves time, frustration, and information overload—AI becomes a patient Elmer who never tires of repeat questions.

Knowledge Recombination

AI's real magic is mixing knowledge from different worlds. It might borrow a concept from aviation (signal-to-noise management), data networking (packet routing), and physics (wave propagation) to solve a radio problem. It's like having every expert you ever met in the same room brainstorming on your behalf.

Benefit to Hams: Fresh ideas and cross-disciplinary solutions—AI suggests approaches you might never have connected on your own.

Still Human at the Controls

AI can't solder, climb a tower, or smell a fried resistor. It has no intuition or hands-on experience—that part remains ours. The beauty is in partnership: we bring the real-world testing; AI brings the speed and perspective.

Benefit to Hams: You stay the operator in command, using AI to make better decisions, faster.

In the End

So yes—AI is a fancy way of putting collective knowledge in your hands. But it's also a tool that learns your language, respects your experience, and helps you skip the drudgery so you can focus on operating, building, and experimenting.

Think of it as the newest piece of test equipment in the shack: one that fits in your browser instead of on your workbench.

This article was developed in collaboration with ChatGPT, demonstrating the kind of human-AI partnership I'll be exploring in this series. Questions, comments, or suggestions for future topics? I'd love to hear your thoughts on where AI could fit into your ham shack. Let's make this a conversation. Contact me at [vicepresident@gars.org] or catch me at the next GARS meeting or workshop. Richard Kitz [KM4SWL] is a retired IBM systems programmer, current Georgia Gwinnett College student, and GARS member who enjoys exploring the intersection of traditional amateur radio and emerging technologies.

October Technician HamCram

The HamCram was a success thanks to Ralph Pickwick KJ4CNC and John Davis WB4QDX for their effort and presentation of the Technician exam information. At the end of the class there was a unique exam session since the FCC along with the rest of the government is shutdown. It meant all of the passing students could not get their call signs until the FCC reopens. Furthermore, getting their Federal Reference Number (FRN) is also unavailable. It means each student has to do the application to get their FRN when the FCC opens, and send it along with their Certificate of Successful Completion of Examination (CSCE) to the GARS Voluntary Examiner Coordinator (VEC) – W5YI – to get their test completion to the FCC (using the frn@w5yi-vec.org email).

After all that, the FCC will send an email to each student with the information to pay their \$35 fee to get their license. A day or 2 after paying the FCC fee, their license will finally get to them.

The student who passed their Technician class are:

Jose Alicea II
 Amy Bross
 Deirdre Burn
 Otis J Enoch
 Ronald J Jacobson
 Mary A Kosier
 Nicholas Kundin
 Michael Mixon
 JAMES W NEWELL
 Shawnee Palmeri
 NANCY E PATTERSON
 Laurie B Rundqwist
 Leelon Scott
 Tara L Taitt

Special thanks to the GARS VE Team who helped make this happen:

KJ4CNC Ralph Pickwick
 WB4QDX JOHN DAVIS
 W4DTR DAVID BRUSE
 K4CQO ROBERT HOFFMANN
 KM4SWL RICHARD KITZ
 W4VNA Lynn Hatker
 NG4H WILLIAM BEGUHN
 WS3V WILLIAM RUDD
 KK4TKJ CHARLES MC CORD





October JOTA Event

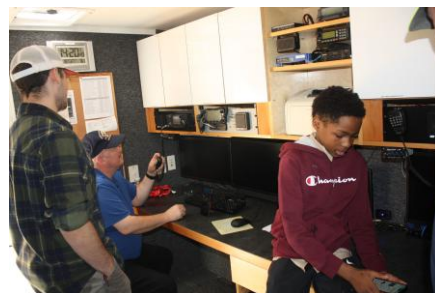
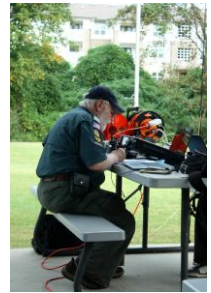


JOTA held its event on October 18th at the VFW Post 5255 in Lawrenceville. From Steve Back WB2OGY, the GARS interface for the scouts:

I want to thank all those who attended and helped on Saturday. Although I wish we had more youth, those that attended were exceptional, I want to give a special thanks to Nate a Cub Scout and newly licensed Amateur Operator who ran the Fox Hunt and made his first DX contact on 10 meters with Germany.

The weekend made me feel good about the future of Scouting and Amateur Radio.

73 & yours in Scouting,
Steve Back WB2OGY



The Basics

Before Wireless

de: Bob Schmid, WA9FBO



Before wireless, there was wire. Lots of it (Fig. 1).

Early telegraph systems often needed multiple wires per circuit. Schilling's Russian design used six; Gauss & Weber in Germany tried two to six; Cooke & Wheatstone's first English system needed five; and the French dial telegraph required an incredible 26—one for each letter. Even pointer telegraphs (Fig. 2) could use up to five.

Eventually, though, the two-wire circuit—one for the outgoing current and one for the return—won out.

In 1838, German scientist Carl August Steinheil simplified things even further by demonstrating a single-wire telegraph that used the earth itself as the return conductor. Copper plates buried in moist soil provided the return path, reducing resistance, cost, and leakage. The "earth return" (or "ground return" as Americans called it) caught on quickly.



FIGURE 2 – WHEN THE SKY WAS WIRES

But the single-wire system had limits. Telegraph clicks could shrug off a little noise, but as power grids, electric trams, and larger networks spread, electromagnetic interference (EMI) became overwhelming. Many circuits had to be rebuilt as two-wire lines. The telephone exposed the weakness even more. Carrying voice demanded higher bandwidth, but a single-wire path muffled the signal and added noise. Switching to two-wire "metallic" circuits helped, though nearby power lines still induced interference. To balance it out, engineers adopted *transposition*—swapping the positions of the two wires every few poles. Even so, crosstalk plagued telephone networks. Adjacent pairs weren't equally spaced, so interference between conversations occurred. The breakthrough came in 1881 when Alexander Graham Bell introduced the *twisted pair*. By twisting the two conductors together, both wires stayed the same distance from outside noise sources, reducing radiation, susceptibility to EMI, and crosstalk. Any interference picked up equally on both wires—*common mode* noise—was canceled at the receiving end by a transformer. By 1900, nearly the entire American telephone system used twisted pair or open wire with transposition.

That simple idea carried forward. The old telephone wiring became known as Category 1—never intended for data, but still the ancestor of today's structured cabling. From there the standards evolved: Cat 3 for early Ethernet, Cat 5 for fast Ethernet (Fig. 3), Cat 6 for gigabit and beyond, up to Cat 8, supporting 2 GHz bandwidth for 25 and 40 gigabit Ethernet.

Eventually, though, the two-wire circuit—one for the outgoing current and one for the return—won out.

Even so, crosstalk plagued telephone networks. Adjacent pairs weren't equally spaced, so interference between conversations occurred. The breakthrough came in 1881 when Alexander Graham Bell introduced the *twisted pair*. By twisting the two conductors together, both wires stayed the same distance from outside noise sources, reducing radiation, susceptibility to EMI, and crosstalk. Any interference picked up equally on both wires—*common mode* noise—was canceled at the receiving end by a transformer. By 1900, nearly the entire American telephone system used twisted pair or open wire with transposition.



FIGURE 3 – POINTER TELEGRAPHS USED MULTIPLE WIRES

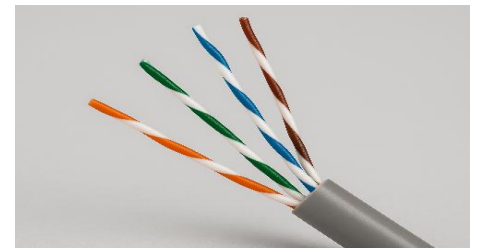


FIGURE 4 - CAT 5 CABLE, 4 TWISTED PAIRS

The tangle of telegraph wires gave way to Bell’s twisted pairs, and those in turn became the engineered cables that now carry everything from phone calls to gigabit internet (Fig. 4).









| Cat 1 | Cat 2 | Cat 3 | Cat 4 | Cat 5e | Cat 6 | Cat 7/7a | Cat 8 |
|---|---|---|---|---|--|---|---|
|  |  |  |  |  |  |  |  |
| VOICE | EARLY DATA | 10 MBPS | 100 MBPS | 1 Gbps | 10 Gbps | 10 Gbps | 25/40 Gbps |
| 0,1 MHz | 4 MHz | 16 MHz | 100 MHz | 100 MHz | 500 MHz | 600-1000 Mz | 2000 MHz |

FIGURE 5 - EVOLUTION OF TWISTED-PAIR CABLING

The Inductor Equation



We usually think of lightning in terms of huge currents (~20,000 A) and fast rise times (~1 to 5 μs). But what makes lightning so dangerously high in voltage?

Lightning already carries high voltage before it strikes anything. The voltage builds between the cloud and the ground until the electric field becomes strong enough to break down the air and form a conductive path—a plasma channel. But once current begins to surge through that channel, another effect kicks in: **inductance**.

When lightning strikes a tower, the tower’s inductance resists the sudden change in current. That resistance to change causes an additional voltage to appear across the structure—sometimes a very large one. How large? That’s where the inductor equation comes in.

The equation is rooted in the work of electrical pioneers Michael Faraday and Joseph Henry in the 1830s. Faraday discovered **mutual induction**: changing the current in one coil induces a voltage in another nearby. Henry discovered **self-induction**: when the current changes in a coil, a voltage spike occurs in that same coil. Whether mutual or self-induced, the rule is the same: the faster the current changes, the greater the voltage it induces. The inductor equation is:

$$V = L \cdot di/dt$$

Where: **V** is the induced voltage across the inductor, **L** is the inductance, and **di/dt** is the change in current divided by the time it takes.

(**L**, for inductance, was named in honor of Heinrich Lenz. The unit of inductance, the **henry (H)**, honors Joseph Henry.)

Even if **L** is small, a massive **di/dt** can cause a dramatic voltage spike. That’s why lightning can leap through air—the voltage surge isn’t just from static charge buildup; the rapidly rising current in the lightning channel induces a voltage spike, too.

Back to our unlucky tower: a 30-foot tower might have an inductance of 1 μH. What voltage develops across it when it sees a current change of 20,000 A in 1 μs?

$$V = L \cdot di/dt = 1 \mu\text{H} \cdot (20,000 \text{ A} / 1 \mu\text{s}) = 20,000 \text{ V}$$

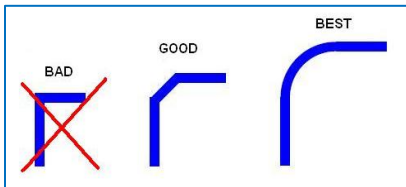
Yikes, 20 kilovolts!

To reduce lightning damage, we bond the tower to ground with large-diameter wire—or even better, wide copper strap—to help lower the inductance. We can't do much about di/dt , but we *can* lower L to help reduce V .

By the way, the inductor equation also works in reverse. For example, how much voltage do we need to cause a current of 100 A to flow in a 1 μH inductor in 1 μs ?

$$V = L \cdot di/dt = 1 \mu\text{H} \cdot (100 \text{ A} / 1 \mu\text{s}) = 100 \text{ V}$$

We need 100 volts to overcome the inductance's natural opposition to the rapid change, and that doesn't count the voltage drop from the coil's DC resistance.



Now let's shift to the other end of the scale. When laying out PC boards, we want power traces to have low inductance—thick and short, with no sharp bends, corners, hairpins, zigzags, or narrow necks. What voltage spike results from a 10 A/ns current change through a 5 nH trace?

$$V = L \cdot di/dt = 5 \text{ nH} \cdot (10 \text{ A} / 1 \text{ ns}) = 50 \text{ V}$$

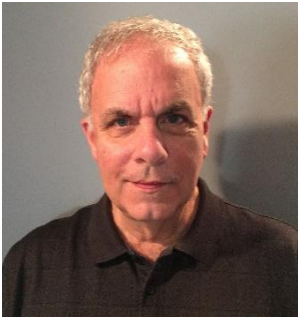
That's a 50 V spike—enough to cause ringing, ground bounce, or EMI. Even a straight wire has inductance, so when designing a project, it's worth asking: What is the current doing? How fast is it changing?

From lightning bolts to logic boards, $L \cdot di/dt$ explains why sudden current changes cause sparks to fly, transistors to fail, and signals to misbehave.

Collins 51S-1 Receiver - Part 1

Vintage Amateur Radio

de Bill Shadid, W9MXQ



Throughout the time we have used HF in amateur radio as well as for military, embassy service, agency service, or research use, the manufacturers have produced what we will call professional receivers. The major manufacturers in the United States, starting in the 1930's, always had a top line radio that they sold to the aforementioned areas of business. Perhaps the longest in this domestic market was Collins Radio Company.

Collins, always a player in the transmitter market, began to supply product in the commercial and professional market after World War II. Starting with the Amateur Radio market Model 75A-1 (then called the 75A) in 1947, Collins moved the technology into the General Coverage market with the introduction of the 51J-1 Receiver in 1949. The 51J-1 was followed by the 51J-2, then the 51J-3 in 1952, and finally the 51J-4 in 1954, the 51J series made a name for itself as stable and capable designs. The parallel design of the 75A-1 (already mentioned), 75A-2, 75A-3, and 75A-4 Amateur Radio Band (not General Coverage) models. Readers will recall that the 75A-4 gained a great reputation as a stand-alone receiver used with Collins and other brand transmitters, it may be best known as the receiver side of the famous Collins Gold Dust Twins, the 75A-4 Receiver working with the 1,000-watt Collins KWS-1 Transmitter.

This article will cover the successor to the 51J-4 Receiver, the 51S-1, introduced in 1959¹. I can only say that my nick name for this radio is "Collection Perfection,"



Collins 51S-1 Receiver – "Collection Perfection"

W9MXQ Collection

The use of the "S" in the model's name and an appearance that borrows from the "S" Line radios of the day, the 51S-1 is not related to the 75S-1 Amateur Band Receiver that came out in 1958. Perhaps there were technical similarities due to being developed at the same time, but the 51S-1 was targeting a different market. But, that said, the cabinet size is similar (same size front panel), the knobs were the same, as were meters, general readout appearance, etc. The error of thinking that the 51S-1 was a general coverage version of the 75S-1 is a natural, if incorrect, one.

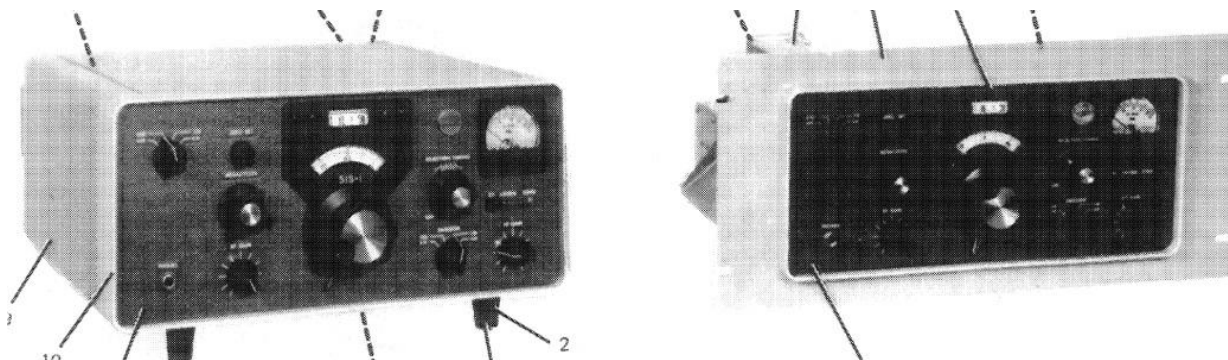
Below is the radio that developed before the Collins 51S-1, the Collins 51J-4. At over twice the volume of the 51S-1, the 51J-4 was a very capable but very massive instrument. Fellow appreciators of this vintage of equipment will see the similarity of the front panel design of the 51J-4 to the 75A-4 Amateur Band Receiver.



Collins 51J-4 General Coverage Receiver (circa 1964)
RigReference

At 28 Pounds, the 51S-1 is a lightweight compared to its predecessor, the 51J-4, at 43 pounds. Those 43 pounds, however, did not include the optional outer (desktop) cabinet. The 51J-4 (as did its predecessor 51J-1, 51J-2, and 51J-3 models) was standard as a rack mounted radio. My guess would be that the cabinet would add another 20 pounds. The 51S-1 came standard as a desktop unit with a rack mount option available, as shown below.

While not pertinent to this article, it must be mentioned for collectors that the 51J-3 Receivers carried the military R-388 designation while the 51J-4 carried the R-390 designation. There were other features to the R-388 and R-390, depending on the exact military contract language at the time of purchase. Also important was that the 51J-4 continued to be built for government contracts for four years into the marketing time of the 51S-1. The 51S-1 was marketed from 1959 through 1975 while the 51J-4 overlapped a bit as it was marketed from 1954 through 1963. Military installations do not necessarily support an immediate acceptance of a new model – and to be sure, the 51J-4 was, and to some degree still is, a competitive radio design.

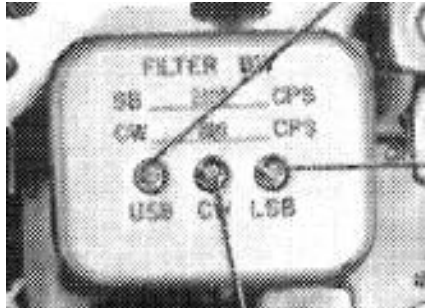


Collins 51S-1 as a Desktop Unit (Left) and as a Rackmount Unit (Right)
W9MXQ – Collins 51S-1 Service Manual²

The Collins 51S-1 is a hands down pleasure to operate and to hear on the HF Bands. I refer to it as “Collection Perfection” because of its smooth audio and effective mechanical filters on AM and SSB. It does use a crystal filter, however, on CW. Bandwidth options that were standard with the radio are as follows:

| Mode | 3dB down Bandwidth | Optional Bandwidth |
|------------|--------------------|--------------------|
| AM | 5 kHz | 6 kHz |
| USB | 2.75 kHz | 3.1 kHz |
| LSB | 2.75 kHz | 3.1 kHz |
| CW | 800 Hz | 300 Hz |

There is little documented on the optional bandwidths. Perhaps they were not generally available to buyers off the shelf of the radio – maybe only part of a contract. Note the Filter Box on the top of the 51S-1 Chassis:



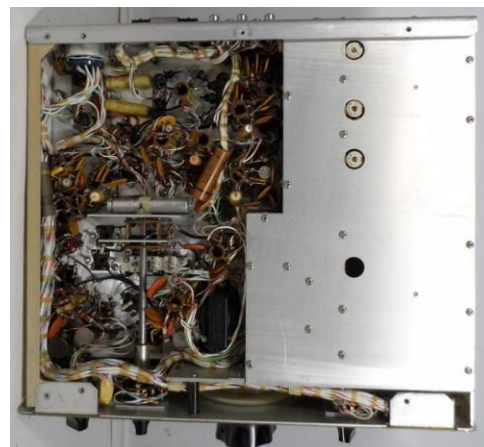
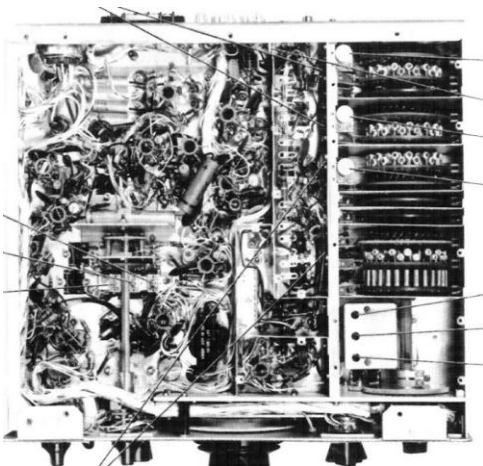
Filters for CW and SSB (LSB and USB) were housed in a “Filter Box” on top of the receiver chassis. Adjustment points were a part of the alignment process. Without a complete understanding of the filters’ operation my suggestion that the user refrain from touching these controls.

W9MXQ - Collins 51S-1 Service Manual

A feature way ahead of its time with the introduction of the 75A-1 and 51J-1 Receivers in the 1940’s was the use of heterodyne band (frequency range) crystals mixed with a High Frequency Oscillator and precision Permeably Tuned Oscillator (PTO) for the VFO set a new standard for frequency stability.

The 51S-1 was tuned in 1,000 kHz ranges from 0.2 kHz to 30 MHz. Each range, for a total of 30, includes a crystal with a frequency alignment trimmer. So, 30 independent crystals and trimmers. The 51S-1 in this review is so close in alignment band to band that if the Crystal Calibrator is engaged and the bandswitch is moved through its 30-position range, every band is audible from the lowest to the highest band. Those familiar with the concept involved will understand what I mean – to others, this radio begins to approach the frequency accuracy and linearity experienced in a modern solid-state radio using phase lock oscillators.

For some idea of the design of the bandswitch in this radio, look at this view of the bottom of the chassis:



Collins 51S-1 Chassis – Bottom View

Bandswitch Shield Removed
Collins 51S-1 Service Manual

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Bandswitch Shield Installed
Collins 51S-1 Photo

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In the left picture, observe the detail of the bandswitch on the right side. You can see on the top three visible rotary switch wafers trimmers used for alignment of each band. Lower in the picture you can see one wafer with crystal oscillator trimmer capacitors and below that the wafer holding the individual crystals. If you are wondering how to access all thirty positions, rest easy!! The wafers rotate and individual crystals and trimmers are accessible as the switch is rotated. The right picture shows the Bandswitch Shield installed – protecting the delicate bandswitch.

The tuning of the Collins 51S-1 is a combination of mechanical digital system to get to the band then an analog dial to tune the 1000 kHz span for each band. The system is straight forward and accurate – far easier to use with immediate frequency accuracy when compared to other general coverage receivers of the day using main tuning and separate bandspread dials. Here is a picture of the band setting and tuning setup in the 51S-1:



Collins 51S-1 Receiver
Tuning, Band Set / MHz Dial, and Bandswitch (MEGACYCLES)
W9MXQ – 51S-1 Service Manual

Tuning, as mentioned, on this radio is relatively easy. Note the Bandswitch (MEGACYCLES) knob. That is turned until the left two digits of the mechanical digital readout indicates the 1000 Hz frequency span you want to use. In this case the radio is set to receive in the 7 MHz band – see the “07” in the left, two-digit reading at the top of the readout panel. Now, using the Main Tuning Knob, turn the knob as many revolutions as necessary to get the proper 100 kHz range you want to tune. Use the finger hole in the Main Tuning Knob for large excursions. You can see here that I wanted the radio to be on the 7 MHz range and tune from 7.1 MHz at the low side of the range. After that, set the main tuning knob, in this example, to “50” so the radio is tuned to 7.150.0 MHz.

Just for reference, check how this can relate from band to band. If the “150” part of the readout is left in place and the MEGACYCLE switch is turned to “14,” then the radio would be tuned to 14.150 MHz

A major feature of the 51S-1 is what Collins calls, REJECTION TUNING. This is an effective Q-Multiplier that can help with a wide range of noise or the rejection of heterodyne tones. While this control is intended more for the AM station to AM station interference common in the 1950’s through the 1960’s, it works well at different adjustment points on today’s bands to reduce noise. It will reject carriers on SSB stations.



Collins 51S-1 Receiver
REJECTION TUNING is between the Readout and the Signal Meter
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The 51S-1 came in several models, tied to operating voltage, cabinetry, and rear connection array. Those differences were primarily tied to installation realities and not to operating specifications when used as a high frequency receiver.

Check the following chart for a complete list of model differences.

| Model Number | Specifics |
|--------------|--|
| 51S-1 | Desk Cabinet, 115/230 VAC, 50 to 400 Hz – 125 watts |
| 51S-1A | Desk Cabinet, 28 VDC Transistorized Power Supply – 4.5 Amperes |
| 51S-1F | Rack Cabinet, 115/230 VAC, 50 to 400 Hz – 125 watts |
| 51S-1AF | Rack Cabinet, 28 VDC Transistorized Power Supply – 4.5 Amperes |
| 51S-1B | Same as 51S-1 but with Rear Mounted Military Connector Box |

The 51S-1 and 51S-1A are designed to be desktop mounted or they may be setup with a Collins optional shock mount system base. This was suitable for some aircraft installations. The receiver in all forms require a 4- or 600-ohm speaker or headphone connection to get audio output. The 51S-1B has an added 150-ohm impedance output.

Here is a Collins 51S-1 Receiver mounted on the Collins 350D-5 Shock Mount Assembly:



W9MXQ – Collins 51S-1 Service Manual

The rear panel of the Collins 51S-1 showed connections to the outside world and indicated the radio's flexibility:



Collins 51S-1 HF Receiver – Rear Panel Inset View

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You can see many connections to the interior circuitry including antenna, muting connection for interconnection to a transmitter, IF Output that could feed an SDR in today's world, and a large, 9-Pin "Octal" connector for power input connections.

That 9-pin connector is wired for how the radio is powered. For instance, on the 51S-1 at W9MXQ it is wired for 120 VAC. But with some wiring changed at the connector it could be wired for 240 VC just as easily without making changes inside the radio.

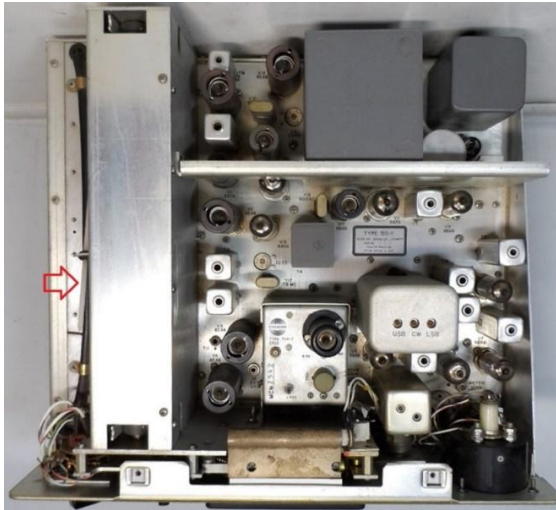
For perspective, here is the entire back panel of the receiver:



Collins 51S-1 HF Receiver – Rear Panel View

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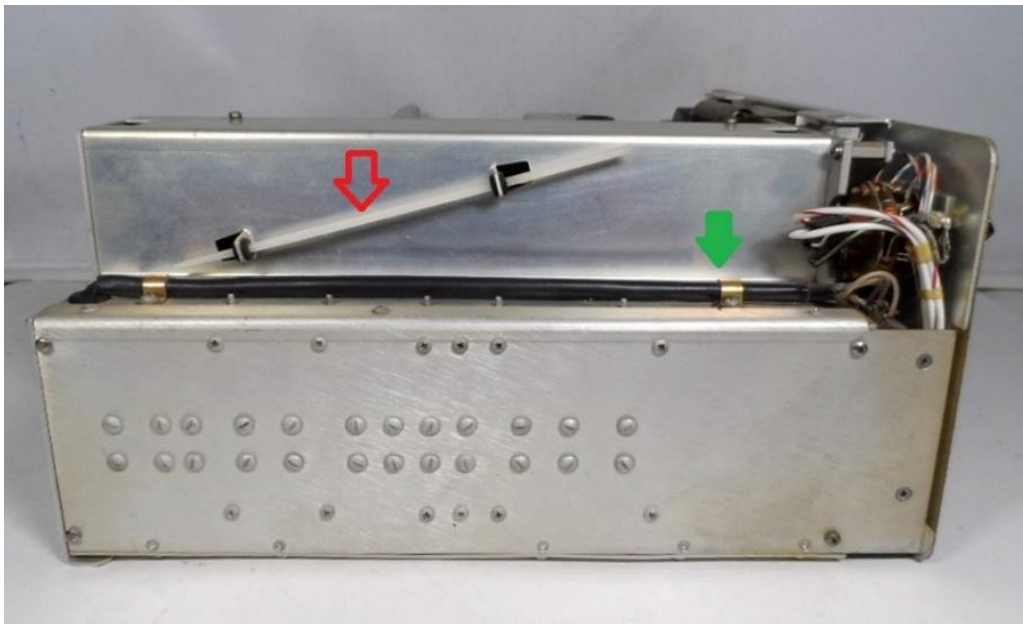
And here is a view of the interior of the radio: (See the red arrow showing the alignment tool included with the radio – almost always missing on a 51S-1 you find today.)



Collins 51S-1 HF Receiver – Top View – Front Panel at the Bottom

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Now see the picture below showing the left side of the radio with a better view of that alignment tool. Again, in this view, note the red arrow for the alignment tool. Now, look at the green arrow for a bit of a surprise:



Left side View – Collins 51S-1 Receiver

Red Arrow for another view of the Alignment Tool. Note the green arrow at the hold down bracket for the black cable – that is the location of a Bristol™ wrench for use in removing front panel knobs. The Alignment Tool is a feature that is often missing but the Bristol™ wrench was unexpected. It was most likely placed there by a previous owner. The Bristol™ wrench is not listed as a part of the radio as originally sold.

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The 51S-1 Receiver is designed to receive, as noted before, on 30 ranges of 1000 kHz wide, starting at 200 kHz. However, the front end of the receiver was designed to work from 2 through 30 MHz. That means that the North American AM Broadcast Band and the 160-meter amateur radio band would have limited sensitivity – as detailed below:

| Frequency Range | Mode | Sensitivity |
|------------------------|-------------|--|
| 0.2 to 0.5 MHz | AM | 20uV for NLT 10-db Signal to Noise/Noise |

| | | |
|--------------|--------|---|
| | SSB/CW | 4.0uV for NLT 10-db Signal to Noise/Noise |
| 0.5 to 2 MHz | AM | 15uV for NLT 10-db Signal to Noise/Noise |
| | SSB/CW | 3.0uV for NLT 10-db Signal to Noise/Noise |
| 2 to 30 MHz | AM | 3.0uV for NLT 10-db Signal to Noise/Noise |
| | SSB/CW | 0.6uV for NLT 10-db Signal to Noise/Noise |

W9MXQ – Collins 51S-1 Service Manual

For low sensitivity, below 2 MHz, Collins offered a Preamplifier, model 55G-1:



Collins 55G-1 Preamplifier for the 51S-1 Receiver. The 55G-1 included an internal AC Power Supply plus a speaker for the radio.

KE9PQ

A 55G-1 Preamplifier is desirable but today costs hundreds of dollars due to its very limited availability. A simple homebrew MOSFET amplifier would do the same thing in today's world. As noted, it does include a speaker for the receiver. If you cannot justify the 55G-1 to gain the use of a speaker, I might suggest the Collins 312B-3 Speaker that also matches the Collins S-Line (75S-1, 75S-3, and KWM-2) Radios.

Maybe due to age or original design, or who knows why, I do not like the sound of most Collins Speakers. I have them built into the 312B-3 for this receiver, the 75S-3B Receiver, the KWM-2, and KWM-2A Transceivers. Also, the same speaker unit is in the 312B-4 Console for the 75S-3B / 32S-3 Pair and the 312B-5 Console /Remote VFO units for the KWM-2 and KWM-2A Transceivers. I am more likely to use a repurposed mini-Stereo Speaker or a Heathkit SB-600 or SB-604 Speaker with my Collins gear. Here is a picture of the Collins 312B-3 Speaker:



Collins 312B-3 Speaker Console

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There was also a 312C-1 Rack Mount Speaker, but little information remains on this product.

Sometimes accessories are announced but never produced for one reason or another. Similarly, I have never seen the optional bandwidth filters for this radio.

Modern Collins radios – radios that succeeded the 51S-1 – continued as new designs. All of these were in competition with radios from Drake³, Ten-Tec³, Icom³, and Rhode & Schwartz, and Siemens, to name only a few. There were others yet from Kenwood, Radio Shack, Uniden, and Yaesu but they were not of the so-called professional variety.

The story of the Collins 51S-1 Receiver exceeds what can be said in a single installment. Stay tuned for Part 2 of this receiver's story for other details of this fine receiver and perhaps a further window into the radios like her.

Part 2 will include:

- 51S-1 Significant Operating Characteristics.
- 51S-1 Metering – that is, no simple S-Meter here!
- 51S-1 Appearance – “Hey, your meter face is a different color than mine?”
- 51S-1 Original Competition from domestic (USA) manufacturers.
- 51S-1 Model Variants. “What color would you like your radio to be?”
- 51S-1 Bandwidth Filter Cover variances.
- 51S-1 Early engineering prototype version.
- 51S-1 Successor Collins Models.
- And maybe more....

I appreciate that you read my articles. Remember that I am open to questions and comments anytime at my email address, W9MXQ@TWC.com.

A special note of thanks to my proofreader, Bob Bailey, W9DYQ. Bob is a lot more than a proofreader as he often adds commentary that makes it into the article. Certainly, in any technical article, it is good to have a second person review the thought process.

Notes and Credits:

¹ The Collins 51S-1 Receiver in this article was built in 1968 in the Anamosa, Iowa, Collins factory. Anamosa is about 27 miles east northeast of the Cedar Rapids headquarters for Collins Radio Company (now Collins Aerospace).

² References to the Collins 51S-1 Service Manual are a reference to the Collins Instruction Book, Collins 51S-1/1A/1F/1AF/1B Receiver as received with the Collins 51S-1 in this article.

³ These radios were marketed after the Collins 51S-1 but were likely considered as replacements. As an owner now and over time of some of the Drake and Icom competition, it is clear that in many ways the Collins 51S-1 was the equal of its competition even after its product life cycle had ended. Perhaps the area where the 51S-1 was bested by its late competition would be in the area of frequency stability – especially at start-up.



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GARS Open Positions – Help Wanted

These are some of the positions that are available. If you have a background in any of these positions or want to learn them, they are available for you to fill.

- ❖ Public Information Officer
- ❖ Marketing Chair
- ❖ IT Chair

- ❖ Activities Chair – includes the following types of activities that can be sponsored by GARS
 1. Dog Show
 2. Fox Hunt
 3. GARS Operating Contests
 4. Winter Field Day
 5. GARS Hamfest Volunteers
 6. Georgia QSO Party

- ❖ Non-Chair Activities needed:
 1. Meeting Drink handler
 2. “X” discussion handler
 3. Raffle product coordinator (given a budget to get raffle items)
 4. Holiday Party activities

In order to offer your help with any of these, send an email to president@gars.org or contact the President (Bob K4CQO) at one of our meetings.



GARS Membership

New Members in October

New Members: 0

**Total Members as of
November 1, 2025
355**

Join GARS members for our:

- weekly lunch bunch at 11:30 AM most Fridays
- weekly breakfast gathering at 8:00 AM most Saturdays



Friday weekly gatherings are held at the [Chilli's](#) at:

[947 Lawrenceville Suwanee Rd
Lawrenceville, GA 30043](#)

Saturday weekly gatherings are held at the [Cracker Barrel](#) at:

[75 Celebration Dr
Suwanee, GA 30024](#)

Birthdays in November

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 David Bearden (KQ4QIL)
 Pam Brown (KJ4RYV)
 Will Carson (KZ4HV)
 Julia Collier
 Drake Cullinan (KN4ZEY)
 Greg Durham
 Robert Eybers (KN4WBM)
 Carey Fisher (WB4HXE)
 Puddin Garrison (KJ4QIB)
 Eddie Geike (AK4WM)
 Eddie James (WD3D)
 Scott Karlins (KO4NXZ)
 Danny Kelley (KI4KXO)
 Marc Lulkin (K9TOE)
 Donna McCord (KM4FMW)
 Patrick Mcdougal (K4GTA)
 Jack McElroy (KM4ZIA)
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 Kathy Mellichamp
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 Nova Whatley (KF4HLG)
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 Robert Wojciechowski (W0JO)

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Your current GARS membership status is shown in the monthly newsletter e-mail towards the bottom of the message. To become a GARS member, or to renew your GARS membership, please visit our website – www.gars.org/gars/membership/. To make changes to your GARS membership (moved, new e-mail address, new phone number, etc.), please contact the Membership Chair at [Email \(https://gars.org/contact/\)](mailto:https://gars.org/contact/) with any changes to your Membership information.

Membership Chair: Karen Albritton, KI4HPP

Committee Members: Dave Bruse, W4DTR, Pam Brown, KJ4RYV, John Aguirre, KQ4EJV

ARRL MEMBERSHIP

To update your ARRL membership information, please visit their website - <http://www.arrl.org>.

MAINTAIN YOUR LICENSE

You can update your Amateur Radio license information with the FCC at their website for free - <https://www.fcc.gov/wireless/universal-licensing-system>. License renewal is subject to the \$35 FCC fee.



Donating to GARS

Your GARS donation can be used for a certain purpose by donating to one of these funds:

- GARS SK Memorial Fund for Education (to remember and honor Silent Keys);
- GARS Scholarship Fund (Administered by the ARRL for awarding scholarships);
- GARS General Fund (any club purpose).

GARS has joined these rewards programs (a portion of every purchase you make through these merchants may be donated to GARS):

- Kroger Community Rewards program.

For more information on how to sign up for these rewards programs, or to donate to GARS, visit

<https://gars.org/gars/donations-to-the-club>

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P.O. Box 492531
Lawrenceville, GA 30049

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GARS Meeting Minutes

GARs General Meeting Minutes

October 14, 2025

Opening Meeting: Opened by President Bob Hoffman at 7pm (1900 Hrs) Information on exits, facilities, leaving directions, and safety.

Birthday Acknowledge: Listed in GARS Newsletter

Treasurer Report: Reported by Treasurer Glen Wendt

Membership Report: 360 Members. We had 52 members present and 5 on Zoom.

Programs: Favorite Websites. Kevin Scott, Steve Backs and Dallas Mellichamp shared their favorite sites and Scott had us play a game of name that tune.

Education: Ralph gave update on Tech Ham Cram Oct. 25-26. Jota 10-18-2025 and apparels Reported on 2 ARRIS contacts

Upcoming Events: JOTA 10-18-2025, Technician Ham Cram October 25-26, Ham Fest Nov. 1-2, 2025

General Information: Repeater Survey very good response, Chairperson of various positions and members solicited, Plan for Holiday Party on December 6, 2025. Volunteers needed. Please bring deserts, need help decorating, etc..

Closing: 9pm (2100)

Workshop Minutes - October 21st, 2025

Attendance: 14

Workshop Follow-up on Favorite Ham Websites and Ham Projects

Presenter: None

Brief Summary: This Workshop did not follow the GARS presentation

- Harold, KI4FPR, brought in his Rig Expert Antenna Analyzer to gain some insight on how to use it before next Saturday, when he will use it to analyze the various ham antennas at the Gwinnett County EOC. Glen, W3WWT, took the lead on that, as he had a portable HF antenna in his vehicle.
- Joseph, KQ4YBT, brought in a box of HF wire antennas and various feedlines. Dallas N4DDM and Kevin K4GTR went over the possible bands for the Fan Dipole and how to test it with an antenna analyzer. Then we got into long discussions of the various antenna analyzers on the market.
- Alan K5AKG discussed his antenna project with Kevin K4GTR
- Then a bunch of us discussed our favorite hamfests between Dayton, Huntsville, HamCation, and Stone Mountain.

Elmers are always present at the GARS Workshops. Feel free to bring your questions to the Workshop. If your project is small enough to bring to the meeting, please let us know in advance so we can gather the necessary tools, test equipment, etc.

73 Dallas N4DDM
Workshop Chair



Events – GARS and others

ARRL CONTESTING INFO

From ARRL Contest Calendar

> For more information click the links <

January 2025

- 1 [Straight Key Night](#)
- 4 [Kids Day](#)
- 4-5 [RTTY Roundup](#)
- 18-20 [January VHF](#)

February 2025

- 10-14 [School Club Roundup](#)
- 15-16 [International DX – CW](#)

March 2025

- 1-2 [International DX– Phone](#)

April 2025

- 13 [Rookie Roundup – Phone](#)

May 2025 (no ARRL Contests)

June 2025

- 7-8 [International Digital Contest](#)
- 14-16 [June VHF](#)
- 21 [Kids Day](#)
- 28-29 [Field Day](#)

July 2025

- 12-13 [IARU HF World Championship](#)

August 2025

- 2-3 [222 MHz and Up Distance Contest](#)
- 16-18 [10 GHz & Up – Round 1](#)
- 16-17 [EME - 2.3 GHz & Up](#)
- 17 [Rookie Roundup – RTTY](#)

September 2025

- 13-15 [September VHF](#)
- 13-14 [EME - 2.3 GHz & Up](#)
- 20-22 [10 GHz & Up - Round 2](#)

October 2025

- TBD [Collegiate QSO Party](#)
- 11-12 [EME - 50 to 1296 MHz](#)
- 20-24 [School Club Roundup](#)

November 2025

- 1-3 [Nov Sweepstakes–CW](#)
- 8-9 [EME - 50 to 1296 MHz](#)
- 15-17 [Nov Sweepstakes–Phone](#)

December 2025

- 5-7 [160 Meter](#)
- 13-14 [10 Meter](#)
- 21 [Rookie Roundup–CW](#)

For more information:

<http://www.arrl.org/contest-calendar>

HAMFEST CALENDAR

[Please confirm the status of a Hamfest before making plans to attend]

11/08/2025 - [Montgomery Hamfest](#)

Location: Montgomery, AL
Type: ARRL Hamfest
Sponsor: Montgomery Amateur Radio Club
Website: <https://w4ap.org/>

11/08/2025 - [SPARCFest](#)

Location: Pinellas Park, FL
Type: ARRL Hamfest
Sponsor: St. Petersburg Amateur Radio Club
Website: <https://www.sparc-club.org/sparcfest/>

11/15/2025 - [Amateur Radio Festival & Tailgate](#)

Location: Trenton, FL
Type: ARRL Hamfest
Sponsor: Dixie Amateur Radio Klub
Website: <https://www.qsl.net/w4dak/>

11/15/2025 - [PARC Annual Swampfest](#)

Location: Fort Walton Beach, FL
Type: ARRL Hamfest
Sponsor: Greater Vision Church
Website: <http://www.w4zbb.org>

11/22/2025 - [Flamingo Net Flea at the University of Miami](#)

Location: Coral Gables, FL
Type: ARRL Hamfest
Sponsor: Flamingo Net ARC
Website: <http://www.FlamingoNet.8m.net>

11/22/2025 - [K4KDI Fall Tailgate 2025](#)

Location: Orlando, FL
Type: ARRL Hamfest
Sponsor: South Conway Rd. Baptist Church

12/06/2025 - [Silver Springs Radio Club Hamfest](#)

Location: Ocala, FL
Type: ARRL Hamfest
Sponsor: Silver Springs Radio Club
Website: <http://k4gso.us>

12/12/2025 - 12/13/2025 - [Tampa Bay Hamfest, ARRL W Central FL Conv](#)

Location: Plant City, FL
Type: ARRL Convention
Sponsor: Florida Gulf Coast Amateur Radio Council
Website: <http://www.fgcarc.org/>

01/16/2026 - 01/17/2026 - [SW FL Regional Hamfest 2026 \(Fort Myers\), ARRL Southern Florida Section Convention](#)

Location: Fort Myers, FL
Type: ARRL Convention
Sponsor: Fort Myers Amateur Radio Club, Inc.
Website: <https://swflhamfest.com/>

02/13/2026 - 02/15/2026 - [Orlando HamCation, ARRL SW Division Convention](#)

Location: Orlando, FL
Type: ARRL Convention
Sponsor: Orlando Amateur Radio Club
Website: <http://www.hamcation.com>

For more information: www.arrl.org/hamfests-and-conventions-calendar

When searching by division, remember some states adjacent to GA are in different divisions: Southeastern: GA, AL, FL Delta: TN Roanoke: NC, SC



| GARS Events Calendar for 2025 | | GARS Recurring Calendar |
|---|---|---|
| TechFest Winter Field Day Dog Show Fundraiser Spring Technician HamCram Georgia QSO Party North metro area Fox Hunt Memorial Day Parade ARC/KARC Hamfest Field Day Summer General HamCram Fall Technician HamCram JOTA Stone Mt. Hamfest Holiday Party | February 1 2025 January 25-26 2025 March 26-30, 2025 March 29-30, 2025 April 12-13 2025 April 2025 May 26 2025 June 7 2025 June 28-29 2025 August 23-24 2025 October 25-26 2025 October 2025 November 1-2 2025 December 2025 | <ul style="list-style-type: none"> • 2nd Tuesday of the month at 7 pm (except December) Monthly Club Meeting 690 Airport Rd, Lawrenceville, GA 30046 • 3rd Tuesday of the month at 7 pm (except December) Monthly Workshop 690 Airport Rd, Lawrenceville, GA 30046 • 3rd Sunday of the Month at 3 pm GARS Ham Exam Session 690 Airport Rd Lawrenceville, GA 30046 • Every Monday at 7:30 pm: GARS Want, Swap, Sell, and Information Net on the GARS 147.075 MHz repeater • Every Monday at 8:30 pm: ARES Training on the GARS 147.075 MHz repeater • Every Friday at 11:30 am, GARS Lunch at Chili's • Every Saturday at 8:00 am GARS Breakfast at Cracker Barrel |
| GARS Calendar for November 2025 | | |

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--|--|---|-----------|----------|---------------------------------------|---|
| | | | | | | 1 8:00 AM Breakfast at Cracker Barrel |
| 2 | 3 7:30 PM 2M Net 147.075(+) MHz Tone 82.5 | 4 7:00 PM Exec Meeting | 5 | 6 | 7 11:30 AM Lunch at Chili's | 8 8:00 AM Breakfast at Cracker Barrel |
| 9 | 10 7:30 PM 2M Net 147.075(+) MHz Tone 82.5 | 11 7:00 PM Meeting EAA 690 Hangar | 12 | 13 | 14 11:30 AM Lunch at Chili's | 15 8:00 AM Breakfast at Cracker Barrel |
| 16 3:00 PM Ham Radio Exams, EAA 690 Hangar | 17 7:30 PM 2M Net 147.075(+) MHz Tone 82.5 | 18 7:00 PM Workshop Meeting EAA 690 Hangar | 19 | 20 | 21 11:30 AM Lunch at Chili's | 22 8:00 AM Breakfast at Cracker Barrel |
| 23 | 24 7:30 PM 2M Net 147.075(+) MHz Tone 82.5 | 25 | 26 | 27 | 28 11:30 AM Lunch at Chili's | 29 8:00 AM Breakfast at Cracker Barrel |
| 30 | | | | | | |

More information about the above calendar events can be found on [GARS Calendar](#)

Local Ham Radio Exams & Meetings

GARS Ham Radio Exams

GARS Exam Sessions are held the 3rd Sunday of the month

Preregistration is **REQUIRED**, Doors open at 2:45pm, exams start promptly by 3:00pm. For more information and to preregister, please visit <https://gars.org/exams/>

GARS VE-Team
 VEC: W5YI-VEC
 EAA 690 Hangar
 690 Airport Rd
 Lawrenceville, GA 30046

GARS VE Team Leaders
 E-mail: exams@gars.org.



October 2025 Results

The GARS VE Team exam session results from October 19th:

- 1 new Technician:
 • Michael Johnson
- 1 Upgrade to General:
 • William G Davis –KJ4DRL

Special thanks to the Volunteer Examiners who made this exam session possible:

- K4CQO – Bob Hoffmann
- KM4SWL - Richard Kitz
- W4VNA – Lynn Hatker
- WS3V – Bill Rudd
- NG4H – Bill Beguhn
- W4DTR – Dave Bruse
- WR1TR – Bill Hawkins

Thanks & 73, Bill Beguhn (Co-CVE)

Special thanks to the GARS VE Team members that help at the Stone Mountain Hamfest:

| Year | SAT | # Passed | % Passed | SUN | # Passed | % Passed | Total | # Passed | % Passed |
|------|-----|----------|----------|-----|----------|----------|-------|----------|----------|
| 2025 | 25 | 13 | 52.00% | 7 | 3 | 42.86% | 32 | 16 | 50.00% |

K4CQO ROBERT HOFFMANN
 NG4H WILLIAM BEGUHN
 N4MPC JOHN DE LOE
 KC2FDU ELMER GAPPI
 NV4Q William Carmichael
 KA4KBX GARY PIKE

KD4UYP Brian Jones
 WB2OGY STEVEN BACK
 WR1TR WILLIAM HAWKINS
 KK4TKJ CHARLES MC CORD
 KC2FDU ELMER GAPPI
 KD4PCU Anna Pike

KM4SWL RICHARD KITZ
 WS3V WILLIAM RUDD
 KQ4DWZ Douglas Hooper
 N4MPC JOHN DE LOE
 W4DTR DAVID BRUSE
 NF4L Nathanael Smith

Local Ham Radio Exams

In order to find an exam session near you, please visit http://www.arrl.org/exam_sessions/. Contact the information in the listing for further information.



Local Ham Radio Meetings

In order to find a local Ham Radio Club meeting near you, please visit <http://www.arrl.org/find-a-club>. Contact the club for meeting information.



Exam Issues During FCC Shutdown

Important Licensing Announcement

The FCC databases are currently off-line due to the Government Shutdown. You will have to wait until the shutdown has ended before you can enter any address, phone number, or email address changes. If you test for a new license or upgrade during the shutdown, the paperwork will be held by the VEC's (Volunteer Examiner Coordinators) until the shutdown has ended, and then it will be submitted to the FCC and processed. Typically, it has taken a day or two for the FCC to catch up on processing the backlog of paperwork from being off-line.

If you upgrade from Technician → General during the shutdown, you will be able to use your call sign with "/AG" (temporary AG) when operating on General Class frequencies before the FCC updates your license, or if you upgrade from General → Extra, "/AE" (temporary AE) when operating on Extra Class frequencies. Your CSCE (Certificate of Successful Completion of Examination) allows you to operate with those new privileges temporarily - as long as you use the correct suffix (like /AG or /AE). Your CSCE is valid for 365 days from the date of issuance. Unfortunately, if you are newly licensed, you will have to wait to receive your call sign before you can operate.

If you have any questions regarding testing, feel free to email myself along with my Co-Leaders at <https://www.gars.org/gars/ve-team/>.

73 - Dave, W4DTR
GARS Exam Team Leader
<https://gars.org/exams>



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For swap items, post and see items on GARS groups.io (<https://groups.io/g/GARS>).

Ready to take your Ham Radio Exam?

Go to <https://GARS.org/exams/> to learn more, and to register for an upcoming exam session.