Microvolt

Monthly newsletter of the Utah Amateur Radio Club

October 2025

Amateur Evolution

Take a look around you. Digital modes, volunteer examiners, emergency communication, mesh, and a fresh generation of rising hams give amateur radio a new appearance. Gone are the days of Heathkit and Radio Shack, which provided a constant supply of glowbugs and creativity to the budding amateur nerd. Face it – this doesn't look much like your grandpa's hobby any more. Yes, amateur radio is evolving, but are these changes positive or negative? The real question is whether you personally will fight 'em or join 'em. So, what's it gonna be?

Cover – Amateur evolution

Anybody who's been involved with amateur radio for more than a couple of decades can attest that things have definitely changed over the years. On one hand, there seems to be fewer tinkerers per capita among us than in previous generations, and many long for the days when most young amateurs wore soldering irons attached to their proverbial sleeves. On the other hand, many of the changes have brought in a huge influx of new operators, and have opened the doors to many new approaches to ham radio.

Change is bad

The fact is, many older hams have decided that the hobby has "gone to the dogs," and have pretty much left the craft except to keep a late-night 75-meter health ailment ragchew going. These seasoned hobbyists are accustomed to the craft of amateur radio appearing as one exclusive to the die-hard experimenter that possesses a shack full of tools, many handcrafted, even hand-designed. Many of them bristle when encountering a less-experienced amateur who makes a mistake or demonstrates a bad habit while operating, and are often quick to step in and correct the offender.

They often blame changes in exam policy, indicating that today's operator need but memorize the answers to secure a license, which was once earned by deep technological knowledge, asserting that today's ease will allow just about anybody to get one, leading to poor on-air practices. Some express longing for the day when pink slips were liberally issued by OOs (official observers) for rules violations, saying that enforcement is no longer a priority.

On the other hand, some of the same veterans warn that very few of the rising amateur generation have much interest in repeater function and maintenance, and that many mountaintop stations will eventually fall to disrepair as a result. They worry that changes in technological focus will divert attraction away from important responsibilities and toward more interesting yet less enduring craft facets.

Change is good

In the March 2025 *Microvolt* issue we explored how amateur radio is quite the diverse craft, and that part of its diversity today is due to its evolution. Due in part to the very problems that people claim are making ham radio go to heck in a hand-basket, we now have more licensed hams than at any time in amateur history. With the resurgent interest in emergency communication, a new type of person is attracted to the craft, bringing with it a record number of female participants who now find greater relevance in amateur radio. Good or bad, today's on-air priority has turned from strict rules adherence and proper operation to understanding, tolerance, and kindness.

A few want to reinstate the Morse code requirement as a badge of achievement, a gate to filter out those who are not technically adept enough to be deemed worthy of the craft. Yet, the removal of the "code" requirement has allowed numerous good, honest, and worthwhile folks to participate. As an aside, record numbers of hobbyists have become proficient at Morse code since the requirement was dropped because today's participants ***want*** to operate CW, rather than being coerced into it, only to forget it later.

As discussed in this month's editorial, built-in TNCs and other computer-related interfaces (USB, CAT, HDMI, other video, et al) are increasingly becoming regularly included in amateur radio equipment. Along with that, SDRs (software-defined radios) have emerged, on the internet (WebSDR), our desktops, and in our transceivers.

In the end

Finally, modern communication platforms such as Reddit and Discord have fostered new online communities, providing spaces for collaboration and discussion. Yet many licensed operators, new and otherwise, are rediscovering amateur radio as yet another social medium.

We would love to hear your thoughts about the evolution of amateur radio.

Microvolt editorial staff

Editorial – Avoiding the Geezer complex

When people think of the word ***geezer***, they tend to envision an elderly male who's one toy short of a Happy Meal. In the amateur radio world, being a geezer has little to do with gender or age, and is defined more by attitude, behavior, and insecurity, but this discussion will use the pronoun "he" out of sheer laziness.

Just what is a geezer?

A geezer is a person who has a lot of experience at something, and tends to believe the way he has performed or accomplished that activity is the only way to do it, so that a change or deviation from that method is just plain wrong. Here are some symptoms that can clue you in to the fact that a person is in fact a geezer:

- many of his QSOs are long-winded, filled with reliving the past
- he jumps to conclusions without considering all the facts, such as assuming a ham is unintelligent when -the ham asks a relatively basic question, or comes on the air with a mild speech impediment
- he's quick to criticize and correct others on the air, and refuses to acknowledge his own mistakes
- when another asks how he knows something, instead of providing useful information, he states that he has superior knowledge, and begins quoting his lengthy resume, which might list thirty years of military service and forty years as a ham operator, starting as a teen who had to learn Morse code by candle light

- he bristles at changes in technology, saying that he and computers don't get along, and that digital modes have no place in ham radio
- he bristles at changes
- he criticizes any use of Chinese radios, smartphones, and / or non-ITU phonetics
- he'll often start a response with, "Wull, back in my day, ..."
- he's often negative, or often portrays a sour attitude, or often complains on the air about a variety of things
- he might use (even mildly) abusive words regarding his spouse or others on the air

You get the idea...the bottom line is that a geezer is a ham who is like concrete: a little mixed up, but set in his ways. He tends to be inflexible, wordy, and unwilling to learn or accept anything new.

That being said, it's ok to retrieve from a lifetime of learning, and to look back on those years with fondness...you deserve it, and you've earned the right. If you're a person who has many good years of great experience to draw from, the rest of us honor you and value your input and judgment. You have a permanent place in the ham radio world, and we welcome your contributions.

Be the helpful ham

So, how does one avoid becoming a geezer? Accept new ideas, embrace change, be open to suggestion and correction, understand that you don't know everything there is to know about a subject, and be the helpful ham, ready to provide good information in brief, thoughtful answers. If somebody questions something you've gleaned from your many years of valuable experience, try and understand what the person is really trying to ask or learn.

Who knows? Some day you might need to ask a helpful ham to return the favor.

Anything to add? Email ***editor@utaharc.org***

Letters to the editor

Dear Editor:

I posted on social media that I'm looking for suggestions on a good but inexpensive amplifier, yet many people evaded my question and gave me advice for a better antenna. I know the importance of improving my antenna system, but is it so wrong to want an amplifier?

Craig in Riverton

Dear Craig:

On one hand, people reading your post might not understand your background or your realization that antenna system attention is paramount. On the other hand, an amplifier is simply another good tool in your amateur bag, and there's no need to limit yourself simply because a few attempt to discourage you from getting a bigger hammer.

Dear Editor:

Is it better to get a GMRS license before getting an amateur Technician license?

Steve in Milford

Dear Steve:

If you plan to take a road trip with your family in the near future or you plan to go Geocaching in the near future, getting a GMRS license might be a fun and convenient way for family and friends to keep in contact. Unless you have an immediate need for one, however, there's probably no practical reason that the timing of securing one license should affect the other.

Dear Editor:

I was tuning around the other day and came across a strong signal on 40 meters. And not only a strong signal but strong language. And no call signs. Does the FCC not enforce their rules about obscene language?

Alan in Saratoga Springs

Dear Alan:

So sorry you encountered that spot on 40 meters. Unfortunately, this is a case of picking your battles, and apparently the FCC has chosen not to pick that battle as vigorously as some might want them to. A few years ago the FCC downsized and had to scale back some of their activities, and amateur enforcement was one of them. For us, as long as the violators remain in their niche frequency, we can work around them with the rest of our spectrum.

Dear Editor:

Once in awhile I notice a shortwave radio receiver for sale. Why would anybody buy a shortwave radio, when they could buy a transceiver and go both directions?

Ken in Salt Lake City

Dear Ken:

I believe what you're asking is, why get a receive-only radio when you can get both a transmitter and a receiver in one unit, right? If so, you might have a point, because most ("general receive") amateur radio transceivers can receive nearly all shortwave frequencies. However…

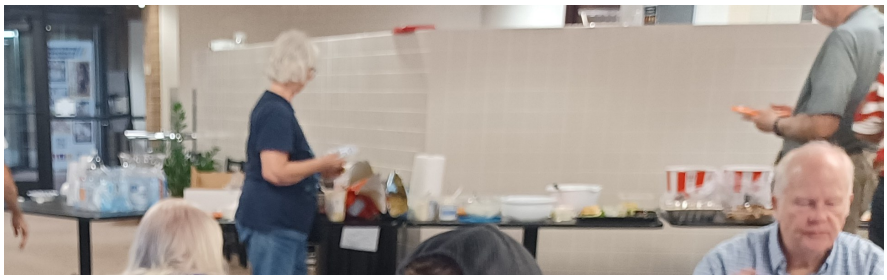
First please keep in mind that not everybody has a license to transmit. While a transceiver can typically offer more features than a receive-only shortwave radio, a listener does not need a license to listen. Second of all, most shortwave receivers are much less expensive than amateur radio transceivers, allowing for a greater listener audience. Thirdly, SWLing (shortwave listening) is quite a popular pastime and fun hobby for many people, even those who are licensed. Fourth, most "shortwave" stations do not broadcast on amateur frequencies, rendering your license worthless for transmitting there anyway.

Send your questions to ***editor@utaharc.org***

Club news

Instead of our regular monthly meeting for September, UARC held another dinner, this time the 2025 Fall Potluck. Photos start on page 8.

BTW, you can view past club meeting presentations on our YouTube channel.



UARC 2025 Christmas Dinner

We've discovered that our members enjoy eating and socializing so much that we're planning a third dinner (not counting the one at Field Day or Steak Fry) for this year, this one in time for the Holidays. This UARC Christmas Dinner (not a "potluck" after all) will replace the December club meeting on Thursday 11 December 2025, to be held at the Golden Corral on 665 E 7200 S in Midvale.

UARC 2026 Winter Field Day

Missed Field Day this summer? You can make up for lost time by attending Winter Field Day with UARC. We plan to participate ***from noon Saturday January 24 through noon Sunday January 25*** at a yet undisclosed park, and all are invited. We're looking for two benevolent amateurs to volunteer their RVs for the event, to let us use them to house our stations for the duration.

For your information

UARC Homebrew Night

Many of you are not only inclined to building, fixing, or modifying your gear, but are also itching to show it off. Thursday 09 October 7:30 pm at the UofU Warnock Building is the time and place of our annual Homebrew Night for you to come and do just that.

Christmas 2025 Dinner

The club Christmas dinner is 6:30 pm Thursday 11 December 2025 at the Golden Corral, 665 E 7200 S in Midvale.

Winter Field Day 2026

UARC is planning to participate in Winter Field Day, from noon Saturday 24 January to noon Sunday 25 January 2026 at a yet-to-be-disclosed location. To keep things simple, we plan to only run 2 stations, so our exchange will be ***W7SP 2M UT***.

License courses

Salt Lake:

General : Tuesdays 7:00 pm to 9:00 pm
147.160+ MHz (127.3 Hz tone)

Provo:

Technician : Saturday, 8:00 am to 1:00 pm
18 Oct, 15 Nov, 20 Dec, 17 Jan
Visit **HamStudy.org/sessions** to register (free)
Provo Fire Station #2, 2737 N Canyon Rd
Email **nv7vham@gmail.com** for info

Orem:

Technician : 4 Tuesdays, 6:30 to 8:30 pm
Jan 20, Jan 27, Feb 3, Feb 10
Visit **psclass.orem.org** to register ($10)
Orem City EOC 56 N State St, 2nd Floor
HamStudy.org account required
Email **nojiratz@hotmail.com** for info

Eagle Mountain:

Technician : 5 Thursdays, 7 to 9 pm
Aug 14, Aug 21, Aug 28, Sep 11, Sep 18
Email **ki6oss6365@gmail.com** to register (free)
Eagle Mountain City Hall, 1650 Stagecoach Run

Exam sessions

Salt Lake County:

- Email Garth Wiscombe W7PS **w7ps@arrl.net**
  Oct 27, Nov 24
- Email Rick Morrison W7RIK **w7rik@arrl.net**

Utah County:

- Sat 18 Oct 2:30 pm : **Provo** : **signup**
- Sat 15 Nov 10:00 am : **Eagle Mtn** : **signup**
- Sat 15 Nov 2:30 pm : **Provo** : **signup**
- Sat 20 Dec 2:30 pm : **Provo** : **signup**

Club repeaters

Farnsworth Peak : 146.620– MHz (no tone)
Scott Hill : 146.620– MHz (no tone)
Lake Mountain : 146.760– MHz (no tone)

SDRs and beacons

Northern Utah WebSDR : **sdrutah.org**
KK7AVS SDR : **k7xrd.club**
N7RIX SDR : **sdr.n7rix.com**
K7JL beacon 28.2493 MHz

HF remote and club transceiver stations

If you'd like to learn how to get started using the remote stations, visit the **HF Remotes link** on **the club website**:
https://user.xmission.com/~uarc/HFRemote.html

How you can help!

Email **uarc@xmission.com** to reach the club leadership. Email **editor@utaharc.org** to add content.

Spotlight – Walt Nicholes WA7YPL

When I was 9 years old, my Dad got my brothers and me each a 100 mW Radio Shack "walkie-talkie" for Christmas. I was mesmerized by it. Although we had a lot of fun talking to each other on the only channel it had, Channel 7, the real test was talking to the East Lawn Cemetery near Provo Canyon from our home in Edgemont, about 2 miles away. WOW! I was hooked. But in those days a "real" CB transceiver was too expensive, so I just spent a lot of time wishing.

Jump forward 12 years and I was drafted into the US Army, and ended up in the Signal Corps. I was force-fed Morse code, and was taught basic radio operations – military style. Later I trained in radio teletype and then radio repair.

It was in Germany a year later when a ham approached my radio shed and asked if I had a license. I didn't, but under the rules he could administer the test for a "conditional class" license. Because of all of the Army training, passing the exam was a snap, and soon afterward, I became WA7YPL. I have kept that call sign throughout, and sometimes say WA7 Yelling Pretty Loud, which those who know me find unremarkable.

Along came kids, and relocations, and ham radio wasn't a practical pastime for me, but I built a Heathkit HW101 and its power supply, and when I got a few minutes here and there, I spent a little time with it.

Jump forward to about 1998 when I met Jim Manookin N7XGA and he sold me on the idea of a 2-meter handheld transceiver. Again I got one from Radio Shack, and it works to this day. I was involved for years with the MARA net that he headed up.

And finally, in March of 2020 I retired. My wife and I discussed what I would be doing, and she suggested that I get back into ham radio. I had kept my license active, and I thought that was a good idea. She insisted that I get "good" equipment this time (what wife DOES that?) and I decided on an Icom IC-7300 for HF and an Icom IC-2730A for VHF/UHF. (Pictured in the photo.)

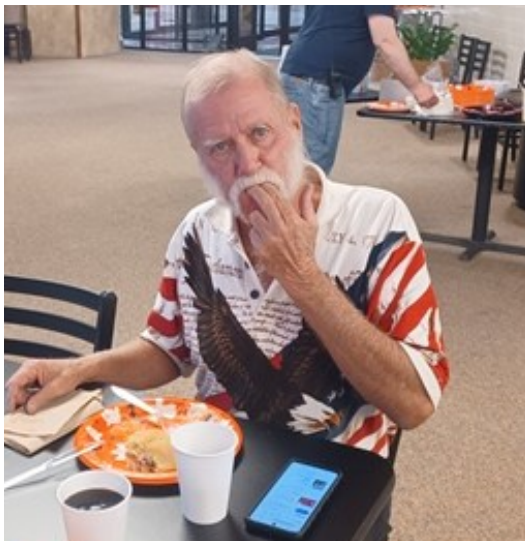
In the Army, we made our own antennas, so I made a VHF/UHF antenna out of cooper pipe stuff, and I strung a 204 -foot end-fed long wire up and over the trees in the back yard. Both appeared to have worked pretty well.

Lately I have fiddled with some with digital modes, but I still prefer talking.

– 73, Walt

2025 Fall Potluck Dinner

2025 Fall Potluck Dinner



Strays – Computers and ham

It's difficult to find a fixed amateur radio station today, especially one that occasionally operates HF, without a computer screen nearby. From logging software to propagation forecasts, having a computer in the shack is quickly becoming a necessity. Looking up call signs, displaying band privileges, logging contacts, and browsing online swap meets are available today with a few mouse clicks.

One or more computer screens on the desk beside a transceiver give the shack a clean, modern, and appealing appearance. The orange glow of vacuum tubes that had once provided a level of comfort and emotional reassurance in bygone days, have been largely replaced by brighter, more active displays that provide as much, if not a different kind of visual satisfaction.

A number of devices and programs can "interface" with ham radio transceivers by a ***digital*** connection, which is the foundation for computer communication. Through the years, we've used sound cards, TNCs (terminal node controllers), pan adapters, and even custom-made hardware to complete the setup. Also, pre-made computer interfaces, such as Arduino and Raspberry Pi have given electronics hobbyists more advanced digital tools for the job. Many can connect by USB port, of which the latest USB-C type is becoming ubiquitous (omni-present) and is found on most newer devices.

Utility software such as Winlink, fldigi, and EchoLink can be used to perform the communication programming and basic internal "wiring" of the interconnection between transceiver and other devices, even other amateur radio stations. For example, FT8 is a weak-signal digital radio protocol that connects your transceiver through a TNC to other online TNCs worldwide, and has recently become a hugely popular amateur radio contacting and contesting mode.

Auxiliary software such as AirSpy and SDRplay can enhance your existing hardware with not only a techno-appearance, but can provide additional tools for rapid information lookup. Besides basic (local and UTC) time-of-day and weather (temperature, humidity, pressure, wind, etc.) information, many display trends and patterns in the past and forecasts for the near future. Furthermore, many include mapping features that can display great circle arcs drawn between your QTH and all your contacts, if you choose to see them.

Also much of our instrumentation, such as meters, oscilloscopes, analyzers, and monitors, have largely gone digital, which offers high-speed signal processing (for signal enhancement, noise reduction, data compression, and other advantages) with fewer components at lower costs. One im-

Strays – Computers and ham, continued

portant feature of computerized instrumentation is the ability to store the data they measure, along with the date, time, operator name, and ambient conditions that are important to the measurements. Some can even analyze the data to display trends and produce predictions based on the data, a feat once thought impossible.

Some transceivers themselves are computers, as SDRs (software-defined radios) using direct-sampling instead of analog superheterodyning. Display, network, GPS, and peripheral (formerly serial, but today usually USB and Bluetooth) connectivity are often selling points on newer models, just as they are with laptop computers. Even some modern HTs (handheld transceivers) are miniature versions of larger units, being essentially ham radios on a few microchips; in other words, computers.

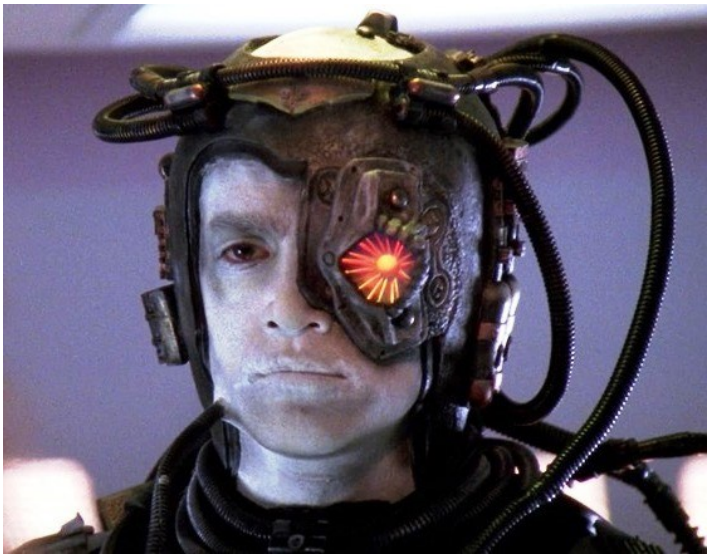
The types of computers are many, most within the categories of desktop, laptop, and tablet. One very popular business computer is the mini PC, also known as POS (point-of-sale), thin client, zero client, AIO (all-in-one), and SFF (small form-factor). The mini PC is the little black box attached to the backside of a monitor in grocery stores, genealogical centers, doctor offices, polling booths, and other kiosks. Any and all of these can be used for amateur radio operations, especially if they connect to the internet and possess a USB port, and most do.

When talking about computers in the 21st Century, we can't ignore the one in most people's hands, the smartphone. Today, one can do just about everything on a phone that can be done on a conventional computer, and much more, including interfacing with an amateur radio transceiver and other gear. The Bluetooth capability of a phone can be used to connect an external microphone, speaker, or even headset to a radio, for example.

Some say that they and computers don't get along. Well, the good news is that a licensed ham really doesn't need to have a computer to operate his or her RF magic. The bad news is that it's becoming increasingly difficult to do ham radio effectively without them, as more and more contests require online uploads of logs, modern radio awards require online confirmations, and sharing of information often requires digital formats such as ADIF and Cabrillo.

Finally

Today, digital components can be found in surprising places, and have become so integrated with every-day devices and appliances that it's becoming increasingly difficult to find something that does not possess a computer-type connection. Washing machines, ovens, refrigerators, cars, pets (think RFID), TVs, thermostats, musical instruments, security systems, robotic vacuum cleaners, remote controls, even things as simple as cabling often include digital circuitry that monitor or enhance it in some way.



It's not completely necessary to have a computer run alongside a transceiver; in fact, many amateurs still operate without one. Once a person becomes acquainted with its utility, however, the gates are open, and resistance becomes futile.

CERT
COMMUNITY EMERGENCY RESPONSE TEAM

Open to all CERT & Community Members!

Come for the breakout training sessions, CERT simulation, or both.

FALL PREPAREDNESS CONFERENCE

SATURDAY
OCT 25

SCHEDULE

WELCOME	8:30 - 9:15
SESSION 1	9:15 - 10:15
BREAK	10:15 - 10:45
SESSION 2	10:45 - 11:45
BREAK	12:00 - 12:45
SIMULATION	12:45 - 4:00

SOUTH SALT LAKE COMMUNITY CENTER
2531 S 400 E, SSLC

BREAKOUT AM SESSIONS

HAM it Up: Radio Essentials
Learn about your area HAM group, basic radio operation, get general questions answered.

Stop the Bleed
Hands-on Stop the Bleed training from Jamie Troyer, U of U

Moulage
Learn how to apply realistic mock injuries. Leave with a few fun supplies and help at your local simulations!

CERT Skills Station
Triage, cribbing, carrying, and fire extinguisher training and practice.

AFTERNOON SIMULATION

Full Disaster Simulation
Practice all your skills (new or old) by participating in a disaster simulation.

REGISTER NOW

Questions? Email: yabbyad@sslc.gov

ARRL Rocky Mountain Division Convention

HamCon Colorado is back for 2025!
Join us for an amazing convention set in picturesque Grand Junction, Colorado. Featuring forums, exhibits and speakers that you don't want to miss out on.

October 23-26, 2025
GRAND JUNCTION, CO

Keynote Speakers

Riley Hollingsworth, K4ZDH
Former FCC Council

Steve Herman, W7VOA
Fmr White House Correspondent, Journalist, Author, VOA

Dave Casler, KEØOG
"Ask Dave", QST Columnist

Mark Proulx, N9EDK
Artemis Team Member, Lockheed Martin

FORUMS
VENDORS/EXHIBITS
SPEAKERS
HOSPITALITY SUITE
PRIZES
FOXHUNT
CONTESTS
DX UNIVERSITY
VE SESSION
PICO BALLOON LAUNCH
W1AW/Ø

hamconcolorado.com
registration@hamconcolorado.com

Follow us!

Microvolt is the official publication of the Utah Amateur Radio Club, Inc. (UARC), 3815 S 1915 E, Salt Lake City, UT 84106, and is published monthly. Copying is allowed with proper credits to *Microvolt*, UARC, and authors. Online versions located at **https://user.xmission.com/~uarc/Microvolt**

We encourage you to submit original pictures (highest resolution), articles, software and hardware descriptions, appropriate humor, and responses to editorials. Email the content, pictures attached, to the editor at **editor@utaharc.org** by the 20th just prior to the target month.

The **Utah Amateur Radio Club** was organized under its present name in 1927, although its beginnings may date back as early as 1909. In 1928, it became affiliated with the American Radio Relay League (club #1602) and is a 501(c)(3) non-profit organization. It holds a club station license with the call sign W7SP, a memorial to Leonard "Zim" Zimmerman, amateur radio pioneer in the Salt Lake City area.

The club meets each month except July and August. The meetings are usually held on the second Thursday of the month at 7:30 PM in the University of Utah's Warnock Engineering Building, room 2230.

Club membership is open to anybody interested in amateur radio; a current license is not required. Dues are $20 per year. Send dues to club secretary James Bennett, 4960 W 5400 S, Kearns, Utah 84118. Email address changes to **kk7avs@gmail.com**

Tax-deductible monetary contributions are gladly accepted. Send directly to club treasurer Shawn Evans, 1338 S Foothill Dr, #265, Salt Lake City, Utah 84108-2321. For in-kind contributions, please contact **uarc@xmission.com** to make arrangements.

UARC maintains the 146.620– and 146.760– repeaters, which are administered by the UARC Repeater Committee. Direct comments and questions to any committee member. The 146.760– repeater is on IRLP node 3352.

Call the **UARC Ham Hotline** at **801-583-3002** for amateur radio information, including club, testing, meeting, and membership information. Leave a message, and we'll make an effort to return your call.

UARC 2025 Board

President: Marvin Match, KA7TPH
Exec. Vice President: Linda Reeder, N7HVF
Vice President: Bruce Fereday, KF7OZK
Secretary: James Bennett, KK7AVS
Treasurer: Shawn Evans, K9SLE
Microvolt Editor: Noji Ratzlaff, KNØJI
Asst. *Microvolt* Editor: Ricky Asper, AC7RA
Program Chair 1: Mike McAinsh, KI7MTI
Program Chair 2: Jeri Brummett, WJ3RI
Immediate Past President: Morris Farmer, AD7SR/SK

For-late breaking news listen to the UARC Information Net, Sundays at 8:30 pm on 146.620– or visit the announcement page.

We are grateful to the management of our internet service provider XMission, for the donation of our web service. For account information go to https://xmission.com/ or call 801-539-0852

EIN : **99-0407768**

Utah Business Registration : **575790-0140**