The *Microvolt*

September 2023

Prologue

Publication: *The Microvolt* (USPS 075-430) is the official publication of the Utah Amateur Radio Club, Incorporated, 3815 S 1915 E, Salt Lake City, UT 84106. It is published monthly except August. Subscription is included with club membership at $20 per year. Single copy price is $1.50. Periodicals postage paid at Salt Lake City, Utah. Postmaster: send address corrections to The Microvolt, c/o James Bennet, 4960 W 5400 S Kearns UT 84118.

Deadline for submissions is the 24th of each month prior to publication. Reprints are allowed with proper credits to The Microvolt, UARC, and authors. Changes in mailing address should be communicated to the Club Secretary: James Bennet, 4960 W 5400 S Kearns UT 84118.

Club: 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 non-profit organization under the laws of Utah. It holds a club station license with the call W7SP, a memorial call for Leonard (Zim) Zimmerman, an amateur radio pioneer in the Salt Lake City area.

Meetings: 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, generally in room 1230 or 2230, sometimes in 2250 or 105.

Membership: Club membership is open to anyone interested in amateur radio; a current license is not required. Dues are $20 per year, including a Microvolt subscription. The Microvolt and membership cannot be separated. Those living at the same address as a member who has paid $20 may obtain a membership without a Microvolt subscription for $12. Send dues to the Club Secretary: James Bennet, KK7AVS, 4960 W 5400 S Kearns UT 84118. Let the Secretary know if you prefer the electronic edition of The Microvolt instead of the printed version.

Contributions: Monetary contributions are gladly accepted. Send directly to the Club Treasurer: Chuck Johnson, 1612 W. 4915 S. Taylorsville, UT 84123-4244. For in-kind contributions, please contact any board member to make appropriate arrangements.

Repeaters: UARC maintains the 146.62- and 146.76- repeaters. The repeaters are administered by the UARC Repeater Committee. Comments and questions may be directed to any Committee member. The Lake Mountain repeater (146.76-) is IRLP node 3352.

Ham Hot-Line: The Utah Amateur Radio Club (UARC) has a Ham Hotline, 801-583-3002. Information regarding Amateur Radio can be obtained, including club, testing, meeting, and membership information. If no one answers leave your name, telephone number and a short message on the answering machine, and your call will be returned.

UARC 2023 Board

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Late Breaking News

For late breaking news listen to the UARC Information Net Sundays at 21:00 on 146.62 or set your browser to: *http://user.xmission.com/∼uarc/announce.html*

Writing for Microvolt

We encourage you to submit original pictures, articles, book reviews, software and hardware descriptions, nuggets of humor and responses to editorials. Photographs in the highest resolution are best. Send plain text without embedded pictures but labeled to correspond to pictures. E-mail the editor: *microvolt@utaharc.org*.

We are grateful to the management of XMission, our Internet Service Provider (ISP), for the donation of this Web-Page service.

For account information go to: *http://www.xmission.com/*
Or call 801 539-0852

Latest News

UARC Meetings

UARC meetings are held on the second Thursday of each month except for July (annual steak-fry) and August (vacation). Meetings are held in the "Warnock Engineering Building" on the campus of the University of Utah. Watch the UARC website for the room and topics.

We encourage attendance of the live meeting, but we will also do our best to stream the meeting live on UARC's YouTube page:

https:/www.youtube.com/c/UtahAmateurRadioClub

From there, look for the feature that is marked "live." The meeting should commence at 7:30. There should be some chatter on the channel by about 7 P.M. and you can connect in that period to make sure everything is working.

If you're working on any electronics project, one of the best tools you can have at your disposal is a multimeter. At the September UARC meeting, Robert Gunnell, KI7FUJ will teach us how to get the most out of this tool.

In place of an Elmer's Corner presentation, several of the attendees at this year's ARRL section convention in Albuquerque, New Mexico will tell us about their experience at the event and what to expect when Utah hosts this event next year.

Our Cover

The UARC steak fry, POTA, and rembrance of things past.

Photo Credits

Jed KI7NNP, Field Day Scott K7HSR, Chuck WA7JOS, Elizabeth KJ7MEB.

License Classes

Utah County:

The Utah Valley Amateur Radio Club will be holding an Amateur Extra course 6:30 pm to 9:30 pm for five Tuesdays in a row at the Orem Public Safety Training Room, 95 E Center Street. We'll hold the course on July 18, July 25, August 1, August 8, and August 15. Sign up for the $10 course at *psclass.orem.org*. No books needed, but you'll need to bring a laptop or smartphone to each class. This class is fun, engaging, and hands-on, but its homework will challenge you. If you have questions, please call Noji Ratzlaff 801-368-1865 or email *nojiratz@hotmail.com*.

Salt Lake:

Technician: Zoom with KI7MTI and KK7AVS every Monday from 6:30 PM. Contact *KI7MTI@gmail.com* for invite.

General: KK7AVS 147.16 mHz, positive offset, tone 127.3, every Tuesday 7 PM – 9 PM.

Extra: In person starting September 19th, up to 4 people at a time., contact Ron Speirs *K7RLS@comcast.net* or 801-904-3587.

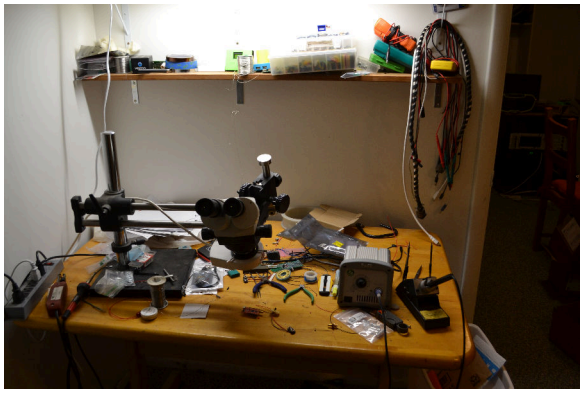
Technician: A free, weekly, live, Amateur Radio Technician Class Licensing course on Zoom will begin on Thursday, September 7, and will run through Thursday, October 19 (7 sessions). The three-hour sessions will start at 6:30 PM Eastern Time. Classes are sponsored by the National Electronics Museum. Those wishing to sign up should email *roland.anders@comcast.net*.

Local Beacons, SDR

K7JL: 10 watts, 28.2493 mHz CW, continuous Sandy.
KK7AVS: SDR 33 cm, 70 cm, 1.25M 2M 6M 10M 20M 40M, Kearns, *http://k7xrd.club*.
Northern Utah WebSDR, *https://www.sdrutah.org*

October Elmer's Meeting

The October UARC meeting will be devoted to member's projects. Bring your's and be prepared to answer questions.



Emergency Service

My View

The justification for our hobby comes is public service. The ARRL acronym says it all "The American Radio Relay League" - messages moved across physical and political boundaries. Back when long distance communication was expensive, amateur radio supplemented the commercial infrastructure. Its organization, or lack thereof, was its strength. If the telephone infrastructure broke down or became overloaded, amateur radio's distributed nature allowed emergency messages to get relayed to the appropriate location (much like the internet). This service helps maintain our non-commercial access to the RF spectrum.

While there is precedent for public property for entertainment (rag chewing, off road vehicles, hiking, fishing) there is always a cost. Part of our mandate is service to the communities we live in. This can take many forms:

- Public events with many participants: parades, marathons, races, rides, fairs.
- Natural disasters to numerous to enumerate.
- Man made disasters: insurrections, riots, fires, chemical leaks, explosions.
- Being ready for such: field days, CERT exercises, local nets.

Why is amateur radio still important? After all we have the internet, a cellular network, and first responders have their own networks.

What can we do that cell phones can't. At a parade or race, all manned sites are in communication with each other and the central site. Everybody knows everything - there is a distributed intelligence to solve problems as they occur.

First responders are stretched thin. You can hire only so many police, fire fighters, and ambulance drivers - just enough to keep day-to-day operations within what the public is willing to finance.

Though with some success, here's my take on why we're failing:

1. We're always preparing for the big one. Yes, that's where we'll be most needed but you can't continually practice for the 9.0 earthquake, or the million acre fire and expect the same sort of action for something smaller. You'll look ill-prepared (read silly) if you show up for a parade with a 3 day go kit.
2. Not enough practice. Let's be honest, how much can you do? How long before you forget what you practiced?
3. Equipment wears out with too much use or abuse. First to go are mechanical things: switches, connectors. Cheaper radios have substandard parts. A $25 HT is not going to last as long as its $500 first responder or multi-thousand dollar military equivalents. A cheaper radio may not work well (or at all) if left out in the sun or dropped on the floor too many times - it's not built to military standards.
4. You can't just walk into a police or fire station, hospital, or morgue without some proper identification. None of this is as intrusive as getting a DOD or DHS clearance, but expect at least a background check and lecture about what you can and can't do. If you expect to help them, prepare for this ahead of time. Remember - you're they're to serve them, not get in the way or tell them what to do.
5. Lack of capability. Not all of us have the full legal limit and giant towers. Most of us are limited to acting locally.
6. Egos. As a radio amateur you are no longer a professional. Even if you spent years becoming an electronics engineer, serviced satellites, radio and television stations, or government infrastructure, telling the current operators they should do it your way garners no friends for amateur radio.
7. "No campaign plan survives first contact with the enemy", Carl von Clausewitz. If you practice the same disaster over and over, it will be different.

What can you do? Perhaps you're ready with everything but some random suggestions.

One QSO a day Make a contact every day using different modes and frequencies.

Hook up a real antenna Get an SMA to PL259/SO239 adapter and hook your hand held VHF/UHF antenna to a J-pole or Yagi outside the house.

Training Get Community Emergency Response Team (CERT) training, take the FEMA on-line courses, the ARRL EC-001 "Introduction to Emergency Communication" and other on-line courses, get the next higher FCC license.

Exercises Be a volunteer for communicator for parades, races and other community events. Organize neighborhood exercises, work Field Day, set up your own exercise.

Local Club Join your local club and support their operation.

UARC Steak Fry

July at the Spruces

A sizable number of us repared to Big Cottonwood Canyon's Spruces area. Steaks were grilled, food was eaten, contacts were made, and mercifully, the bugs found other venues to bother.

A bit under cooked.

Snow damage throughout the Wasatch was considerable. One can only guess at the weight required to bend the substantial supports for this picnic table.

Unsafe at any weight.

All ages were represented with some lucky grand parents having a pleasant afternoon out.

Not 5 words per minute yet.

No amateur meeting is complete without radios.

Setting up the 10 meter ringo.

The annual steak fry returns in 2024. Plan now.

Parks On The Air

Saturday, August 5. Echo Reservoir

Several intrepid souls packed up their gear and headed to Echo Reservoir just north of Coalville for a morning and afternoon of radio activity. We setup on the beach in the sand under easy ups or, for the hardy types, directly in the sun.

Some of the Attendees

It was hot and dry - staying hydrated was most important, especially if you are out in the sun talking to the ISS.

Satellites on the sand

At last one of us had their first CW QSO - DX for a distance of 3' but good enough. The (implied) rules for a POTA CW contact are pretty daunting, but we tried anyway.

Dit to the left, dash to the right.

Any park, monument, in town or out in the boonies is fair game. There's many more no matter where you are in the state. Go to *http://parksontheair.com* and the **Map of Entities** and click on the yellow dots for some interesting places. You might want to read

Successful POTA: The WV1W Illustrated Guide to Parks On The Air, by Don Dickey.

Field Day 2023

Oak City, Utah

The 2023 winter did more than molest picnic tables, the road to the usual east facing Payson Lakes was severely washed out and not repaired until the day before we were to start. Fohrtunately, a volunteered space outside of Oak City, Utah was found.

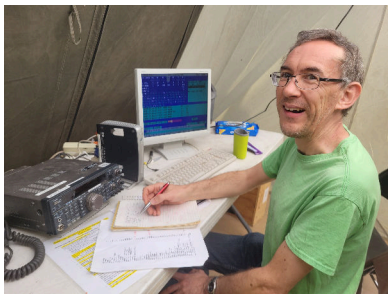
Friday morning early view

Though windy, Friday afternoon setup was accomplished with antennas sprouting like weeds.

Tents, campers, antennas.

Nothing is ever good enough, so the antenna trailer had additional 110 volt outlets installed. Drilling large holes in the middle of the desert is a challenge - fortunately no bandaids were needed.

The working tents were up, the generator fired up, and contacts started to flow in. As the clubs call sign was used and extra class operators were in charge, members started making HF contacts with equipment and frequencies they maybe could not do at home.



Lots of kids had a good time in the desert and learning to solder.

Given the distance from Salt Lake to Oak City and the somewhat inhospitable terrain, turnout did not reach

level of some previous years, but there were quite a few new faces - always a good sign. Though we had fewer points than previous years, the number of bonus points was great. We really were in a field - the nearest hardware store some 20 miles away.

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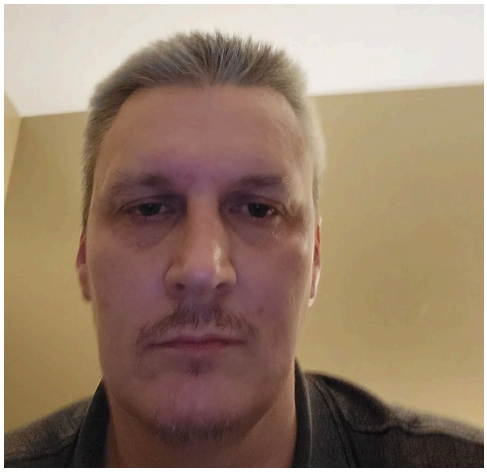
Member of the Month

Michael Chambers KN6KRB



This month we are featuring Michael Chambers KN6KRB. Michael was born in Woodland California in 1977. When he was 8, get got hooked talking to family and friends with Walkie-Talkies. Moving to nearby Sacramento, Michael's brothers got him interested in electronics and he soon became Radio Shack's best customer purchasing a TRS-80 and an IBM clone.

As a high school senior, he worked for an electronics store and then joined the Navy to work with gas turbines. He then attended Cal State University where his professor told him to get a first class radio telephone license with a radar endorsement. He completed his bachelor's degree in engineering and an associate degree in electronics communication. He met his wife Priscilla at the University. They have been married 13 years and have a 10 year old daughter.

Michael decided to get an amateur radio license during the pandemic. He met Joe Careoza (KA6ROM) in Citrus California. As a former fire fighter and amateur radio operator he convinced Michael to get his technician license. After completing his degree, Michael moved his family to Magna Utah. He got his General class license in 2023.

Michael attended his first field day this year at Oak City Utah and really enjoys contesting. He made contacts on 40, 20 and 10 meters. Michael helped with cable splicing class as he took that a long time ago and had a wonderful time.

Michael would love to get a job in fixing radios. But, right now he works in the West Jordan landfill. He works with customers, does cleaning, and run errands. Michael even gets to talk on their Motorola radios. Michael enjoys small game hunting, gun testing and GMRS radio.

Michael, we wish you the best in all of your endeavors.

73 N7HVF Linda Reeder