

The *Microvolt*

September, 2019



Prologue

Publication: *The Microvolt* (USPS 075-430) is the official publication of the Utah Amateur Radio Club, Incorporated, 699 E. South Temple Ste 100, Salt Lake City, UT 84102-1282. 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 Tom Kamlowsky, 4137 Clover Lane, Salt Lake City, UT, 84124-2711.

Deadline for submissions is the 24th of each month prior to publication. Submissions by email are preferred (k7hfv@arrl.net), but other means including diskettes and typewritten submissions can be mailed directly to: Gordon Smith, 632 University St., Salt Lake City, UT 84102-3213. Reprints are allowed with proper credits to *The Microvolt*, UARC, and authors. Changes in mailing address should be communicated to the Club Secretary: Tom Kamlowsky, 4137 Clover Lane, Salt Lake City, UT, 84124-2711.

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 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: Tom Kamlowsky, WA7ZRG, 4137 Clover Lane, Salt Lake City, UT 84124-2711. 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. Instructions for IRLP use are on the club website.

Ham Hot-Line: The Utah Amateur Radio Club (UARC) has a Ham Hotline, 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 2019 Board

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Bookseller: Rick Gregory, KG7GOW	801 582-7783
Historian: Ron Speirs, K7RLS	801 904-3587
Field Day Chair: (To be determined)	
License Trustee: Brett Sutherland, N7KG	801 298-5399
Repeater Engineer: Randy Finch, K7SL	801 556-7565
ATV Engineer: Clint Turner, KA7OEI	801 566-4497
Autopatch Engineer: Gordon Smith, K7HFV	801 582-2438

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IRLP Information

For information on using the club's IRLP node on the 146.76 repeater, check <http://www.utaharc.org/irlp>.

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>

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The Official Publication of the Utah Amateur Radio Club, Salt Lake City, Utah
Volume 62, Issue 8, September 2019

September Meeting: Emergency Preparedness and Batteries

The topic of “batteries” is one of the most important for anyone who is involved with emergency communications to master. Disasters are frequently accompanied by power failures and communications are often needed in places where there was no available line power to start with. The solution to these power problems is often batteries. But what kind should you use? How do you get the best life? What kind has the best capacity to weight ratio? What is proper care and feeding?

At our September meeting, to be held Thursday, September 12, our guest speaker will be Dave Christensen, KD7UM. Dave has had considerable experience with emergency communications, batteries, and public service events. He will tell us how to take advantage of the latest battery technology and to give our batteries the best possible care.

The meeting will take place Thursday, September 12th at 7:30 P.M in room 1230 of the Warnock Engineering Building on the University of Utah campus.

UARC meetings are held on the second Thursday of each month. The room number varies with availability. See <http://user.xmission.com/~uarc/meetmap.html> for a map and information on finding the building.

Of course, the meeting will include the “standard” meeting features:

- Availability of ARRL books from Rick, the book seller
- An opportunity to join UARC or renew your membership
- An opportunity to join ARRL or renew your membership
- The chance to meet face-to-face the people you talk to on the air
- The “Meeting after the meeting”: A chance to enjoy pizza or other gastronomic delights with other hams. It happens at Litza's Pizza, 716 E. 400 South.
- The “Meeting *before* the meeting”: A similar get-together for those who can leave work early enough to get there by 5:15 P.M. It is held at “The Village Inn,” 910 E. 400 South in Salt Lake City.

Latest News

Our Cover

Our cover this month features a scene from the club's Field Day entry near Payson Lakes, June 22 and 23. Folks are working to get the smaller of our two tri-band Yagis ready for erection. Thanks to Ron Speirs, K7RLS, for the photo.

Many thanks to all those who helped set up, operate, and tear down. Special thanks go Bruce Fereday, KF7OZK, for taking care of the Saturday dinner.

We had a score a bit lower than in 2018. Does anyone know some more gung-ho contest operators that would like to join us next year?

September License Classes

UARC President Morris Farmer, AD7SR, and Bill Rouleau, AE7UI, will be teaching Technician and General license courses beginning in September.

Each course will run about 8-9 weeks depending on interruptions and student needs. Classes will be taught in Morris' "shack" in the basement of his home, once a week from 7-9 P.M. This enables giving some "hands-on" experience with operating Ham equipment. There is no charge for the course but students will need to have the current ARRL *License Manual* which will be available for purchase at the class.

The Technician course will be on Mondays starting on September 16th.

The General Course will be on Wednesdays starting on September 25th.

If you or someone you know is interested, please contact Morris via email at <mailto:ad7sr@arrl.net>.

Morris' home is fully handicapped accessible in case anyone needs it.

Homebrew Night Coming

There is just a month to go before Homebrew Night. Get your project ready!

Homebrew Night is a chance for hams to display items that they have built themselves for use in amateur radio. This year, it will take place at our October meeting to be held Thursday, October 10.

Home-built equipment has been around just about as long as has amateur radio itself, with folks building transmitters, receivers, and antennas.

Today the possibilities have expanded considerably. One might build an electronic keyer, a power supply for a mobile rig, a linear amplifier, a repeater controller, a microphone mixer or equalizer, a tuner and transmitter for the 2200-meter band, or a 160-meter beer-can Yagi.

Come prepared to give about a five-minute description of your project, what it does and what its good features are. Nothing is too large or too small. If your project is too large or too well tied down to bring in, just bring enough photos and diagrams to show us what it is and how it works.

Errata

In the July *Microvolt*, a photo of one of our Field Day operators was mis-captioned. Dan Hunt, W7YTF, tells that *he* is the operator sitting at one of the Field Day stations. We apologize for the error and thank Dan for adding contacts to our score. Dan tells us he had fun and is looking forward to next year.

AA3YT, SK

It is with regret that we announce the passing of Dan Mignogna, AA3YT, on August 5, just short of his 68th birthday. Dan was a UARC member and was active on the club repeaters as well as on some of the HF digital modes. He was willing to help a number of hams figure out how to put up effective HF antennas despite HOA or owner restrictions.

Dan's obituary can be found at: <https://usobit.com/obituaries-2019/08/daniel-mignogna-august-23-1951-august-5-2019/>.

N7SM, SK

A two-time UARC President, Russ Michaelson, N7SM, passed away on Sunday, August 18, in Omaha, Nebraska, at the age of 72. His name may not be familiar to those whose Utah ham experience hasn't extended back several decades,

but Russ put in a great deal of effort for the club and the hobby, back in the 70's and 80's. Russ first got involved at a time when UARC's membership was waning down to the tens rather than the hundreds. It bounced back with Russ's efforts being a major factor.

Russ was involved with numerous projects at the time including making code-practice tapes available to those who needed them, building much of the '76 repeater's autopatch, and becoming the first trustee of the club license when the 146.62 repeater was built.

While in Salt Lake City, Russ was employed in broadcasting at several stations, but finally started a career with Union Pacific Railroad, where he stayed for the rest of his working years. His job took him to Omaha, where, he said, ham activity did not have the spirit it did in Utah.

Russ finally died from complications from his type one diabetes. He will be missed by your editor and a number of hams who knew him.

License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone
09/04/19	(Wed.)	Clearfield ⁵	Joe Girauda, N7JEH	(775) 777-4798
09/18/19	(Wed.)	Provo ⁵	Steve Whitehead, NV7V	(801) 465-3983
09/18/19	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
09/30/19	(Mon.)	Taylorsville ^{3,5}	Garth Wiscombe, W7PS	(801) 558-5936
10/02/19	(Wed.)	Ogden	Rick Morrison, W7RIK	(801) 791-9364
10/05/19	(Sat.)	Salt Lake City ^{1,4}	Gordon Smith, K7HFV	(801) 582-2438
10/12/19	(Sat.)	Hurricane ²	Gary O. Zabriskie, N7ARE	N/A
10/16/19	(Wed.)	Provo ⁵	Steve Whitehead, NV7V	(801) 465-3983
10/16/19	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
10/26/19	(Sat.)	Logan	Richard D. Elwood, KE7GYD	(435) 770-7050
10/28/19	(Mon.)	Taylorsville ^{3,5}	Garth Wiscombe, W7PS	(801) 558-5936

¹Preregistration required. Check with the contact person before the test session.

²More information at <http://www.dixieham.org/meetings.html>

³New location is the Taylorsville City Hall, 2600 Taylorsville Blvd, Room 110

⁴More information at <http://www.utaharc.org/Exams/>

⁵Preregister by going to <http://www.hamstudy.org/sessions/> and finding the session date.

More details at <http://user.xmission.com/~uarc/testinfo.html>

WWV Centennial Operating Event

Have you ever wanted to work WWV, the time and frequency service run by the National Institute of Standards and Technology (NIST)? Well, that's not quite possible in the foreseeable future, but the next best thing is happening. On October 1 WWV will celebrate its 100th anniversary. This makes it the oldest radio station in the world still operating. As part of the recognition, an amateur station using the call "WWØWWV" will be looking for contacts from Friday, September 28 through Wednesday, October 2. It will be operating adjacent to the WWV and WWVB transmitter site in Fort Collins, Colorado.

Operating right next to several kilowatts of transmitter power can cause some serious problems when one needs to receive weak signals on HF. The special event station will be operating within one-third of a mile from the six WWV transmitters (three of which run 10 kW) and the 50-kW WWVB transmitter on 60 kHz. Dave Swartz, WØDAS, of the Northern Colorado Amateur Radio Club (NCARC) reports that tests have been carried out using band and notch filters and it appears the operation will be practical.

Tests were run over the August 24-25 weekend. Dave reports:

"We assembled, raised, and tested one of our two SteppIR two-element Yagi antennas in just a few hours, with great results on the Reverse Beacon Network and with the couple of dozen contacts we were able to make on 20-meter CW,

"The CrankIR vertical antennas tuned nicely on 80 and should provide for 80 through 10 meters for two of our stations."

Given its proximity, WWV's 10 MHz transmitter presented a problem. Initial tests of the 30-meter

notch filter showed a 20 dB attenuation, which was not narrow enough. Swartz said organizers are considering using a crystal notch filter in order to work around the 10 MHz, 10 kW WWV signal and that the organizers have not thrown in the towel on 30-meter operation.

"By the end of the day on Saturday, we were happy with our results, and we decided a second day wasn't necessary," Swartz said. The team will remain busy over the next four weeks getting everything ready for the special event and will announce specific operating frequencies on its website and via social media."

The official website is: <http://www100.com/>.

The actual operation will run 24 hours a day with five separate stations looking for contacts on whatever bands are favored by the propagation of the hour. Four of them will be used for routine operations while a fifth will schedule contacts with schools, universities, and museums. A tower and beam are being put in place along with several vertical antennas. NCARC is joining with the WWV Amateur Radio Club, and NIST to put on the event.

The WWV stations maintain their carrier and tone frequencies to one part in 10^{12} or better based on atomic resonances. They are not only a source of very accurate time (in UTC) but also a way for anyone with a shortwave receiver to calibrate frequency counters and time base generators for transceivers and test instruments. More information about the radio stations, their history, and the services they provide can be found at: <https://www.nist.gov/pml/time-and-frequency-division/radio-stations>.

New Repeater Engineer Needed

Randy Finch, K7SL, has served in the position of Repeater Engineer for nearly two decades. Randy built many of the modules in the 146.62 repeater and instigated the remote receiver which made the repeater's receiver sensitive despite local video noise.

Randy has now moved to Price and doesn't feel he will be in the Salt Lake Valley often enough to continue in the position. We will need to elect a new person to the position at the coming UARC meeting.

The Board of Directors has nominated Clint Turner, KA7OEI, for the position. Clint was responsible for almost all of the engineering for the synchronous pair of repeaters, both on 146.62, and is well equipped with test instruments. (He is possibly the ham with the most service monitors in the state.) At the meeting there will be a chance for additional nominations from the floor, and if there are any there will be a vote.

No Director Election This Year

Utah is part of the Rocky Mountain Division of the American Radio Relay League (ARRL). The country is divided into 15 divisions and each division elects a Director and a Vice-Director. The fifteen directors make up the Board of Directors and are the ones ultimately responsible for decisions that guide the organization. Directors

and Vice-Directors are elected for three-year terms.

This year would have been an election year for the Rocky Mountain Division, but there were no nominating petitions from members for any candidates other than the incumbents, so our current Director and Vice Director simply remain in office for another three years.

ARRL members should feel free to contact their Director with any concerns or suggestions they may have. If a number of members have the same feelings about how the League is run or what changes it should advocate in FCC rules, our Director might be the one who could bring the matter up with the full Board.

Below is the contact information for our Director and Vice-Director:

Director:

Jeff Ryan, KØRM
9975 Wadsworth Pkwy. K2-275
Westminster, CO 80021
(303) 432-2886
k0rm@arrl.org

Vice-Director:

Robert Wareham, NØESQ
300 Plaza Drive, Suite 200
Highlands Ranch, CO 80129
(720) 592-0394
n0esq@arrl.org

Member of the Month

Missie Van Campen, KC7FMW

By Linda Reeder, N7HVF

This month we are featuring Missie Van Campen, KC7FMW. She has been in amateur radio since 1994. Missie has her Technician license. She got interested in the hobby because she lives in Salt Lake and her best friend, Tammie Hansen,

KC7EPZ, lived in Orem. They wanted to communicate with one another without making long distance phone calls. It happened that the author was teaching a ham radio class at the Center for the Blind and Missie and Tammie took the class.

Tammie passed her Technician test right away. Missie qualified for hers on the fifth try. It was wonderful when they could talk to one another using ham radio.

Missie's favorite thing about amateur radio is making friends. She also enjoys getting on nets. Her favorite net is The Friendship Net, which is on seven days a week and is carried locally by IRLP on 449.425 at 8 A.M. Missie also enjoys the UARC Information Net which is on every Sunday night at 9 PM. A long time ago Missie was net control. Just recently Missie filled in for Gordon Smith, K7HFV, when he was in the hospital. She also did the Newline when I went to Minnesota.

Missie enjoys getting on Echolink and is learning all about D-Star. One day missie was talking on D-Star and discovered that she was talking to a gentleman in the United Kingdom. She also made a contact with Canada.

Another net that Missie really loves is the Alaska net. This net was started by a gentleman named John, WL7LPL. It is on Echolink and the repeater is in Alaska. Missie made it possible for this net to be on the 449.425. Missie is thinking about starting a

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women's net in Salt Lake City.

Missie really enjoys writing. She will be writing for the Utah Valley Amateur Radio Club. She will be writing mystery stories about amateur radio. She enjoys singing. Missie has her very own radio show. It is on at 1:40 pm on Wednesdays. The show is called Cow Girl Country Classics and can be found on <http://www.986themix.com/>. Missie started this show with women in mind because she feels that women don't get the air play they deserve.

Missie is a member of UARC.

Missie, we are glad you are back in the hobby and we wish you the best in all of your endeavors.



Missie Van Campen, KC7FMW
(Photo by Ron Speirs, K7RLS)