

The *Microvolt*

April, 2017



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 Dick Keddington, 5474 Hews Place, Taylorsville, UT, 84129-1416.

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: Dick Keddington, 5474 Hews Place, Taylorsville, UT, 84129-1416.

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: Dick Keddington, KD7TDZ, 5474 Hews Place, Taylorsville, UT 84129-1416.

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 2017 Board

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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

Contents

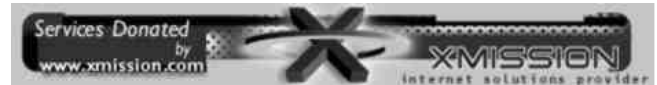
April Meeting: History of Ham Radio	3
Latest News	4
Member of the Month	7

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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For account information go to:

<http://www.xmission.com/>

Or call 801 539-0852



The Microvolt

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April Meeting: History of Ham Radio (From a DX Perspective)

Amateur Radio began sometime in the late nineteen-oughts. According to one story the first real amateur was in one of the Nordic countries. He built a transmitter and receiver just for fun, with no plan to make money from it. His first contact was with his local post office, a mile or so away, via the spark telegraphy mode.

However it got started, amateur radio in the early days was often occupied by the quest to span greater and greater distances. At the time ARRL was founded, DX might well have meant getting from the east coast to Kansas in one hop. Measuring success in “miles per watt” became common. Perhaps those early amateurs were the ancestors of today’s DXers.

So what happened from there? Find out at our April 13 UARC meeting. Our speaker will be Ron Wilcox, KF7ZN. Ron is a serious DXer with a StepIR Yagi and is currently Secretary for the Utah DX Association.

The meeting will take place at 7:30 P.M. on Thursday, April 13, in room 1230 (the “Duke” classroom) of the Warnock Engineering Building.

UARC meetings are held on the second Thursday of each month at 7:30 P.M., in the Warnock Engineering Building on the University of Utah campus. The meeting, during the University's spring semester of 2017, will be in room 1230, the “Duke” classroom. To find the room, if you enter through the main (east) door, just go straight down the hall to the last classroom on the right. See the map at <http://user.xmission.com/~uarc/meetmap.html> for information on finding the building. (The room number varies through the year depending on availability.)

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

- Availability of ARRL books from Brett or John, the “book ladies”
- 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 Jed Petrovich, AD7KG, who presented the program at our March meeting on getting started with DX. Jed's slide shows how many places around the world a single transmission may be heard. (*Thanks to K7RLS for the photo.*)

License Classes

Bill Rouleau, AE7UI, and I will be teaching the Technician license course starting on Monday, April 10th. The course runs for about eight weeks plus the exam at the end.

The General license course begins on Tuesday April 11th and also runs for about eight weeks plus the exam.

Both classes are taught in my "shack" in the basement of my home (about 5000 South and 1500 East) in Salt Lake from 7-9 PM. Our text is the ARRL *License Manual* which will be available at the class for \$30 in cash, or a check made out to UARC. There is no charge for the course itself, just \$30 for the manual. The exam costs \$14 payable at the time of the exam.

If you or someone you know is interested in either course, please email me right away at: <mailto:Fmorris1@comcast.net>.

—Morris Farmer, AD7SR

Field Day: June 24 & 25

One of UARC's most popular activities each year is its annual entry from in the national Field Day contest. Field Day is an event that encourages mobile and portable operation. It tests our ability to set up a station away from "the grid" and provide communications to wide-ranging parts of the country.

The object of the contest (or "operating event") is to set up a portable station away from normal fixed stations and use it to work as many stations as possible in 24 hours. Current plans are to go to our traditional location near Payson Lakes in Utah County.

If you have never been involved in contesting, this can be a good opportunity to see what it's like. When the band of the moment is "hot" contacts may be made once every minute and occasionally there be runs of as many as three contacts within a single minute.

The operation will be principally on the HF bands. If you don't yet have a General or higher license, you can still participate as a third party while someone with the appropriate license stands watch as the official control operator.

Many find the Field Day operation to be a good opportunity to combine some amateur radio activity with a family campout. We will have a group potluck dinner on Saturday night and the club will supply a main course.

There is a need for people to help plan and prepare for Field Day. We need to check out rigs, get necessary Forest Service permits, recruit operators, plan to get various kinds of bonus points, and check out our logging computers and interconnections. If you can lend a hand, get in touch with one of the officers.

For rules and more details about the activity, see: <http://www.arrl.org/field-day>.

WIMU '17: June 16-18

After a number of years of non-existence, the Wyoming-Idaho-Montana-Utah (WIMU) Hamfest

will be held this year at Garden City, Utah. John Jacobs, W7DBO, writes:

“This great traditional hamfest will be held in Bear Lake, Utah, June 16-18, 2017. Bear Lake is a great destination point for families to vacation while attending the hamfest. Activities will be held at the Garden City Conference Center and Park. Activities include: Outdoor vendors, swap meet, women and youth/child activities, fox hunt, special event station, and much more is planned for the hamfest.”

Information about accommodations is now on the WIMU website. For that and other hamfest details, see: <http://www.wimuhamfest.org/>.

Rocky Mountain Division Convention May 26-28

The 2017 ARRL Rocky Mountain Division Convention will be held on Memorial Day weekend, May 26-28 in Cody Wyoming at the Cody Holiday Inn. It is expected to draw attendees from the four states which compose the Rocky Mountain Division: Colorado, New Mexico, Wyoming, and Utah.

There had been some worry that planning for the convention had gone awry when the opening date for pre-registration came and went with no details appearing on the web site. However, Division Director Dwayne Allen, WY7FD, recently visited the Cody group and assures us that plans are moving ahead.

For more information see the convention web site at wyominghamcon.org plus the Facebook page at: <https://www.facebook.com/groups/246764465763764/>

Meeting Programs

Our hard working program chairpersons have a substantial job coming up with a program of general interest every month. They would appreciate some help from you. Are there facets of amateur radio that you would like to know more about, maybe to

decide if it's something you want to indulge in? Maybe you would like to know about what's really going on in transmitters and receivers, how ham radio got started, what a superheterodyne receiver is, how big an antenna you need for moonbounce, or what practices have been helpful for emergency communications in the tornado belt. Whatever it might be, let Morris and Chuck know. They will be very interested. If you have been to a good program at a hamfest and it might be interesting to UARC members as well, let them know about the topic and the presenter.

Some of the possibilities currently under consideration include:

- How to read transceiver specs
- The HF digital modes
- How to take HF backpacking
- How to give useful audio reports on FM

Contact information for the program chairpersons is on our inside front cover. They would like your help.

16 Days of Zero Sunspots

The fact that we are on the declining side of the sunspot cycle became apparent when the sunspot number was zero from March 6 through March 20. The solar flux (a measure of radio noise emitted from the sun on 2800 MHz) has been hovering around 70, close to the all-time low of about 64.

The peak of the current sunspot cycle occurred in 2014 and average sunspot numbers and solar flux have been decreasing ever since. The minimum is likely to occur in the 2019-2021 range.

Low sunspot numbers means less time open each day for the upper HF bands, and longer skip for the lower bands. It's a bad time for 6-meter F2 openings, but can be great for 3 A.M. DX on 80 and 160. Sporadic-E skip on 10 and 6 meters peaks near the summer solstice and doesn't seem to care about sunspot levels.

License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone
04/01/17	(Sat.)	Salt Lake City ^{1,4}	Gordon Smith, K7HFV	(801) 582-2438
04/08/17	(Sat.)	Hurricane ²	Gary O. Zabriskie, N7ARE	N/A
04/15/17	(Sat.)	Logan	Richard D. Elwood, KE7GYD	(435) 770-7050
04/19/17	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
04/19/17	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
04/24/17	(Mon.)	Taylorsville ^{1,3}	Garth Wiscombe, W7PS	(801) 558-5936
05/17/17	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
05/17/17	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
05/22/17	(Mon.)	Taylorsville ^{1,3}	Garth Wiscombe, W7PS	(801) 558-5936
06/03/17	(Sat.)	Salt Lake City ^{1,4}	Gordon Smith, K7HFV	(801) 582-2438

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/>

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

Silent Key Night

By Ron Jones, K7RJ

Announcing a new on-air operating event: Silent Key Night

Beginning midnight, April 1 till the bands are dead will be an opportunity to resurrect those long lost contacts and reconnect to the old timers who have gone QRT. In the spirit of ham radio let's get on the air and see how many of the old timers we can raise.

Use any mode or medium such as CW, Phone, or séance. You may want to use an antenna that has a strong vertical signal and point the antenna up toward the heavens, or, depending on which silent key operator you work, you may want the reverse radiation pattern.

If you hear a distant, ghostly sound, it may be an E-LDE (Extremely Long Delayed Echo) or may possibly be one of the old time silent key operators

buried in a pileup. This may be the perfect excuse you need to try to resurrect one of your dead rigs.

Don't pass away an opportunity to operate from a unique location such as a local morgue, or in a field such as in a cemetery. But plan ahead. If your batteries die, this will indeed be a grave situation.

Scoring: One point per silent key contact, one-half point for each "ghost contact" (That is where you think you worked them but weren't really sure).

Bonus: 1000 bonus points for working The Old Man himself.

You qualify for a special certificate if you yourself are a silent key.

Don't be a deadbeat; join the fun parade on Silent Key Night, where the bands will be alive.

***QST* Editorial Videos**

Editorials in *QST* magazine will now be supplemented with a 60-second video available on the web each month. Each video is 60 seconds long and features ARRL CEO Tom Gallagher, NY2RF. Videos will become available on the

tenth of each month, which is also the time when the digital edition of *QST* is released.

The videos can be found on the League's Youtube channel: <http://www.youtube.com/ARLHQ>.

They can also be found on Facebook, Twitter, and Instagram. The April video addresses synergy between Ham Radio and the Maker Movement.

Member of the Month

Clark Thayne, K7BWO

By Linda Reeder, N7HVF

This month we are featuring Clark Thayne, K7BWO. Clark became interested in amateur radio through the boy scouts when they learned to send the Morse Code with flashing lights. Clark said he and his friends would send code messages in class at school. They would also send the Morse Code by using door buzzers. Clark's best friend, Tom Miller, W7QWH, who attended Granite High School, and Clark, who attended Murray High School, would frequently send each other Morse Code messages. Both of them were licensed in 1952. Clark's Novice call sign was WN7RPM and Tom's was WN7QWH. They were so excited about getting their licenses that they upgraded to General six months later. Clark's call sign became W7RPM. and Tom's, W7QWH. Even though they went their separate ways after graduating from high school, their friendship lived on. Even today they keep in contact with each other. Tom Miller moved to Moscow, Idaho and now serves as an NCS for the Beehive Utah Net.

When Clark was licensed in 1952 he started building the push-pull 813 exciter-amplifier in the 1952 Ham Radio Handbook. He finished the exciter but got too busy to finish the amplifier. Nevertheless, with a VFO, a big 75 watts, and a bug for CW, Clark started to work the world.

Clark sure hated to give up his W7RPM call. After graduating from college Clark and his family

moved to Northern California where Clark started his career. Back then, where you lived determined which call sign you would have. Since Clark was moving to California, he had to get a 6-land call sign. He was assigned W6RZU. They lived in Chico and Pleasanton, California.

Clark and his wife, Karen, have two daughters and one son. All are grown now. Clark was a high school teacher teaching math and physics. He was also a coach. Then Clark became the high school principal and worked there for 30 years. While living there Clark was very active in amateur radio. As a scout leader he got the boy scouts active in amateur radio.

Clark had a ham radio station in a supply closet so that the students could hear the Sputnik satellite on 20 MHz.

In the 70's Clark was involved with the MARA net. Clark even got his Advanced class license while he was in California. When Clark retired from his California position, Clark and his wife, Karen, moved back to Utah where Clark received his Extra Class license. Clark then spent another 20 years teaching math to junior high and high school students including junior high algebra at night.

The Microvolt April 2017

Clark said it was the author, Linda Reeder, N7HVF, and Venus Cederstrom, KB7FXB, who got him interested in joining UARC. He would frequently listen to us on the '62 repeater. Clark is also a member of the Utah VHF Society.

Clark now has a digital amateur radio relay station in Utah County. The station is connected with the National Traffic System. Rich, NS7K, is in charge. Rich and Bill, N7IE, pass traffic to the west coast and the east coast. They even pass messages to the maritime mobile ships.

Clark's favorite things about amateur radio are passing traffic, helping in emergencies, and all of the wonderful people he has met.

Clark enjoys sailing and fly-fishing. He enjoys tying flies while listening to interesting ham conversations. There are so many good hams!

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Clark usually hangs about on 40 meters or local VHF repeaters.

Clark, we appreciate your contribution to amateur radio.



Clark Thayne, K7BWO



Clark's station