

The *Microvolt*

July, 2016



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: GorDori 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 2016 Board

President: Clint Turner, KA7OEI	801 566-4497
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Committee Chairpersons and Members

"Book Lady": Brett Sutherland, N7KG	801 298-5399
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: GorDori 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>

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



For account information go to:

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

Or call 801 539-0852



The Microvolt

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Steak-Fry: Saturday, July 16

Instead of a Thursday evening meeting, UARC's July activity will be the annual steak-fry.

The annual UARC Steak-Fry, a chance to enjoy a steak dinner with other hams in the cool mountain air, will be taking place on Saturday afternoon, July 16. We will be having steaks, potatoes, salad, and dessert. Cost for the full steak dinner is \$12.

Where: The location is "The Spruces" campground in Big Cottonwood Canyon (the canyon that goes to the Brighton Ski Resort). The mouth of the Canyon is at the intersection of Fort Union Boulevard and Wasatch Drive. One approach is to use the 6200 South exit from I-215 and follow the signs to Brighton and Solitude or state highway 190.

From the canyon mouth go east for about eight miles. Start looking for a small sign announcing The Spruces on the right. If you get to the Solitude Ski Resort, you've gone too far.

Once at the campground entrance, tell the people at the entrance station you are with the radio group in "Group Area 7." Parking is limited. We recommend car pooling. If you arrive after all our spaces are taken, your options will be either to pay to park just inside the gate, or to park outside the campground entrance on the side of the highway and walk in from there.

To Bring: We will have plastic-ware and paper plates, but you might want to bring your own plate and silverware. The weather is usually pleasant, but a rain jacket and insect repellent might be items to consider.

When: The steaks will start cooking around 5 P.M., but people start gathering as early as 2 P.M. to have eyeball QSOs and do some swapping.

To Make Reservations: To sign up you need to get \$12 per person to our Secretary, Dick Keddington, by July 9th. Here are some ways to do that:

1. Send a check to Dick made out to "Utah Amateur Radio Club" at 5474 Hews Place, Taylorsville, UT 84129-1416.
2. If you are a PayPal member, use PayPal to send a multiple of \$12 (depending on the number of people) to uarc@xmission.com.

Latest News

Our Cover

Our cover this month is from our annual Field Day entry that took place June 25 and 26. On the left is the small tower being raised with the A-3 beam. To the right is how the large tower appeared on Friday night, illuminated by KA7OEI's LED projection boxes, each holding a single high-pwr LED and an optical system culminating with a large Fresnel lens. We're not sure what passers-by on the highway thought, but we have not, so far, heard of any UFO reports.

Field Day Report

Most of the participants at UARC's effort in the national Field Day contest near Payson Lakes seem to report having a good time. The weather was fair and Saturday afternoon was pleasantly cool. There had been some concern about the Payson Canyon highway being closed, but it turned out that after a month or so delay, the county had repaired the trouble spot sufficiently to allow access. The repaired section was marked with a 10-mph speed limit, but passing through it still took less than a minute.

The setup was more nearly on schedule than most Field Days we can remember in recent years and much of the work was finished by Friday night.

Our location has long been a favorite with horse lovers and this year was no exception. There was one unusual arrangement, though. Some of the "horse people" had arrived early enough to take what had been a favorite camping area among the ham group near the northeast corner. There was plenty of space left, though, and we shared the space amicably.

Both 20 and 40 meters were open through the daylight hours, but both SSB and CW operators reported the 40-meter contacts coming more easily than the ones on 20 meters. Contacts were

particularly sparse for the 20-meter SSB station. Was the A-3 not working well or were band conditions just bad? We should investigate that before next year.

The Get-On-The-Air ("GOTA") station was relegated to 15 meters which, unfortunately, had few openings. Lonnie, K7LO, accepted the job of GOTA coach and did a great job of coaching youngsters to give operating a try.

Vice-President Bruce Fereday, KF7OZK, along with pot luck contributors, put together a great evening meal featuring chicken and pork. As usual, despite the shortage of operators, there was no shortage of diners.

Andrew, AC7CM, who had presented our May meeting on CW, was on hand to operate the CW station most of Saturday evening. He got some good runs that shot our combined rate to near 200 contacts per hour. Contributing the other portion of that rate from the 40-meter SSB station was Brett, N7KG.

By about 4:30 A.M. we were down to just one station still on the air. Club president Clint, KA7OEI, was pulling them in rapidly on SSB, having switched the "40-meter-tent" over to 80 meters where there was a whole new crop of stations waiting to be worked.

The 8-kW generator served us well, powering all the operating tents and a number of RV's, until someone apparently placed an industrial sized load on it, tripping the main breaker. The culprit was never identified, but power was restored quickly.

Dave Felgar, NJ7A, set up a six-meter station and brought in 21 contacts from nearby stations and those coming in via a sporadic-E opening. Sharing the tent with GOTA was a bit tight, so we may want to consider alternatives in the future.

How did we do? Not as well as last year when we had more operators and did better on 20 meters, but it was still a lot of QSOs for a 24-hour period.

The preliminary scoring goes like this:

696 CW QSOs
838 SSB QSOs
4460 QSO points (w/ power and CW mult.)
1050 Bonus points

——
5510 Total score

This compares with 6956 in 2015 and 5166 in 2014. We haven't finished preparing our entry yet, so it's possible the final score could be a bit different, but should close to that value.

USGS Presentation Focuses on Amateur Radio

The USGS has released a presentation which focuses on the amateur radio response to the Nepal earthquake of 2015. It can be found at <http://earthquake.usgs.gov/regional/nca/seminars/2016-06-01/>.

September Classes

Bill Rouleau, AE7UI, and I will be offering Technician and General courses again starting in September. The General course will begin on Monday, September 12, with the Technician course starting on Tuesday the 13th of September. Both of these courses last about eight weeks with the exam following at the completion of the course. The classes are from 7 – 9 P.M. and are taught in my “shack” where we have access to my amateur gear and test equipment.

There is no charge for the course, however there is a charge of \$30 for the latest edition of the ARRL *License Manual* which we use as our text. Manuals will be available at the class.

If you are interested, or know someone that is interested, please have them contact me by email at f.morris1@comcast.net. I will send details to those interested a couple of weeks before the course begins.

— Morris Farmer AD7SR

FCC Clarifies LED Emission Rules

The FCC's Office of Engineering and Technology (OET) has clarified the rules for RF LED lighting devices making it clear that they must meet the Part 15 requirements for unintentional radiators in the whole spectrum between 30 and 1000 MHz. Previously the devices were considered to be exempt from this portion of the Part 15 requirements, but current units clearly have the ability to radiate above 1705 kHz, a condition that triggers the need for measurements and compliance in the VHF/UHF spectrum.

ARRL's Lab Engineer, Mike Gruber, W1MG, who specializes in RF compatibility, indicates that this is welcome news. Complaints from amateur operators about interference from the lamps has been increasing. Fluorescent and CFL bulbs had to meet the more stringent Part 18 requirements. The LED lamps seem to be getting more popular and the combination of that fact and the more lenient requirements were almost a guarantee of increasing complaints.

Gruber pointed out that LED street lighting and traffic signals can be a significant source of interference to amateurs. He believes that such devices, when installed in residential areas, should be required to meet the Part 15b standards for residential environments rather than the more lax 15a standards for commercial or industrial areas. A principal source of interference can be a pole transformer that is shared by LEDs used for street lighting and power drops to residences. The line can readily conduct RF noise directly into a residence.

License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone
07/16/16	(Sat.)	Murray	Steve Baxter, K7SRB	(801) 571-6156
07/20/16	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
07/20/16	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
07/26/16	(Tue.)	Salt Lake City ³	Garth Wiscombe, W7PS	(801) 558-5936
07/30/16	(Sat.)	Logan	Richard D. Elwood, KE7GYD	(435) 753-4360
08/06/16	(Sat.)	Salt Lake City ^{1,4}	GorDori Smith, K7HFV	(801) 582-2438
08/13/16	(Sat.)	Hurricane ²	Gary O. Zabriskie, N7ARE	N/A
08/20/16	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
08/20/16	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
08/30/16	(Tue.)	Salt Lake City ³	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: Senior Center at the Columbus Center, 2530 S. 500 East

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

WE7AA, SK

By Jeff McGrath, N1SC

Mike Searle, WE7AA, first became interested in the hobby back in the 1950's when four of his uncles introduced him to the hobby. Struggling with code, he lost interest. Later, in 1965, Mike got into CB radio. He loved that everyone had call numbers and believed in obeying the rules. Mike had several CB friends that hung out on the same channel, and even belonged to a CB club in Utah County called The Circuit Breakers. A lot of his CB friends later went on to become hams, with Mike and his wife soon to follow.

In 1993 Mike found out that they had a no-code Technician license, so he studied and got his license. Luckily, there was the grace period. Mike's license had lapsed and he was able to renew. Mike later found out that they had reduced the code requirement for all classes to 5 words per minute. So again, he tried, struggled, and again lost interest.

In 2009, Mike was approached by the LDS church to get involved with ERC, an involvement which, again, ignited his interest. At this point, he found out that they had dropped all code requirements and was able to pass his General and Extra in 2009 and remained active in the hobby since.

Mike was instrumental in helping build up the hobby in Utah County. This included being one of the founders of the Utah Valley Amateur Radio Club, spending hundreds of hours testing MESH nodes, participating in the 76er's Social Group, the Western Mercury Net, the Over the Hill Gang, and digital modes, being one of the most kind and patient Elmers to many, and so much more.

Mike Searle, 69, passed away at his home in American Fork June 4th, 2016. Our deepest and heart felt condolences go to Linda and family.

(See images on back cover. -Ed)

Member of the Month

Doralee Olds, AF7SD

By Linda Reeder, N7HVF

This month we are featuring Doralee Olds, AF7SD. She goes by "Dori." Dori became interested in amateur radio in September, 2014. Her brother, Kelly, is active in amateur radio holding an Extra Class license. His call sign is KT0KT. Kelly's wife, Theresa, has her General license and her call sign is KE0GOA. They live in Denver, Colorado, and they were the ones who influenced Dori to get into amateur radio.

In September, 2014, Dori went to Denver to visit her brother and his family. While she was there, Kelly and Theresa introduced Dori to amateur radio. She was impressed. Theresa and Kelly talked with her separately. Theresa told her if an 8-year-old can pass the Technician test, then so could she. Kelly said, "Do you think you can do it?"

And Dori answered "Yes."

As soon as she got home she called me on the ham hotline and I told her that Morris Farmer, AD7SR, was just starting a Technician class. Kelly sent Dori a Technician book for her to use in the class. Theresa gave Dori one of her handheld radios as a gift for when she passed the Technician test.

Not only did she take the Technician class, she also took the General and Extra. Dori said when she first started the class she was really discouraged because she didn't know anything about electronics. Some people dropped the class, but Dori was determined to get this license. She studied two hours every day and it really helped. In October, 2014, she passed her Technician test and only missed one question. At the end of November, 2014, she took her General and didn't miss any questions. Finally, in January, 2015, she started taking the Extra Class. In June, 2015, Dori

passed her Extra Class test and didn't miss any questions.

While she was taking the Technician class she joined UARC. The first meeting she attended was Homebrew Night. She thought it was exciting and wanted to participate in homebrew night. Ron Speirs, K7RLS, helped Dori make low acid battery boxes. In October, 2015, at Homebrew Night, she demonstrated the battery boxes.

Dorie became a member of the South Salt Lake Amateur Radio Team. Dori says amateur radio is all about finding where you fit in. This is her favorite amateur radio club. They have many activities. Every Thursday, except the second Thursday of the month for UARC meeting. at 9 P.M. they have a net in which they take turns being net control. This is a great experience. She also checks into Morris' Coast Guard Auxiliary Division 7 Ham Net 6:30 P.M. every Wednesday night. She is also a volunteer examiner.

Dori loves public service. Last summer she participated in the children's parade, which happens the Saturday before the 24th of July. She also took part in the legacy lordowell through the Benion at the University of Utah. There were different projects during the day. In April of this year it was off to Saint George for the Tour de Cure Saint George bike ride for raising money for curing diabetes. In May in North Salt Lake was the Gran Fondo bike event. They repair trails, protect wildlife, preserve history, and educate children.

Dori has four children: one boy and three girls. They are all grown now. She has nine grandchildren. She is divorced and she figured out a way she could make money at home so she wouldn't have to pay a day care center to take care

of her children during the day. She would sew for people and decorate cakes for special events. She would make jewelry and sell it. She also did baby sitting. Dorie also enjoys gardening and crocheting. She works in a community garden.

Dori is self employed with Academy Life management. She is a hypnotist.

Dori, welcome to amateur radio and congratulations on obtaining your licenses.

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Remembering Mike Searle

