

The *Microvolt*

April, 2011



Prologue

Publication: *The Microvolt* (USPS 075-430) is the official publication of the Utah Amateur Radio Club, Incorporated, 3666 S. State Street, Salt Lake City, UT 84115-4848. It is published monthly except August. Subscription is included with club membership at \$17 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, 1783 Woodside Drive, Holladay, UT, 84124-1620.

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, 1933 Woodside Drive, Holladay, UT, 84124-1632.

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.

Membership: Club membership is open to anyone interested in amateur radio; a current license is not required. Dues are \$17 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 \$17 may obtain a membership without a *Microvolt* subscription for \$9. Send dues to the Club Secretary: Dick Keddington, KD7TDZ, 1783 Woodside Drive, Holladay, UT 84124-1620.

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.

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Club Trustee: Brett Sutherland, N7KG	801 298-5399
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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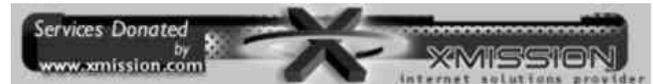
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IRLP Information

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://www.xmission.com/~uarc/announce.html>

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For account information go to:
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The Microvolt

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April Meeting: HF Mobile Antennas

How do you make an antenna only eight feet long work efficiently on a band with a wavelength near 80 meters? It's not trivial, but there are some designs that work surprisingly well. HF mobile antennas present an interesting set of problems when the need for the antenna to work well is combined with a need to keep the XYL from deserting or for the antenna to survive serious jeeping.

Randy Finch, K7SL, a long-time 80-meter mobile aficionado, will be presenting our program at the April UARC meeting, to be held on Thursday, April 14, at 7:30 P.M. Randy will tell us how to homebrew good antennas and to evaluate commercial designs. He will talk about the difference between antennas that favor high- and low-angle radiation, the issue of easy band or frequency changing, and some of the mistakes that lead to inefficient antennas.

Meetings are held on the second Thursday of each month, and during Spring Semester will be in room 2230 (the "Clark" classroom) of the Warnock Engineering Building at the University of Utah. This is on the second floor immediately above room 1230 where we met during the fall.

Some of our traditional parking on the east side of the building is blocked off for construction, so if you find it full, another recommended parking area is near the southeast corner of the Merrill Engineering Building lot. Go south along the east side of Merrill, then go in the north door of Warnock. See http://www.xmission.com/~uarc/ablip_meetmap.html for information on finding the building.

Of course, the meeting will include the "standard" meeting features:

- Availability of ARRL books from Brett, the "book lady"
- 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. The April get-together will be at "Charlie Chow's Dragon Grill," 255 E. 400 South in Salt Lake City.

Latest News

Our Cover

On our cover this month is our guest speaker for March, Jim Brown, NA7G. Jim gave us a primer on types of batteries available today and their relative advantages and disadvantages. He is shown here with a remote-controlled helicopter which is able to fly for about seven minutes powered by a battery that is no larger than an AAA cell, and weighs considerably less. (Thanks to Ron Speirs, K7RLS for the photo.)

WA7LES, SK

We announce with regret the passing of Orson Richard ("Dick") Schmidt on March 5. Dick died of natural causes at the age of 85.

Dick was a UARC officer for a number of years in the 60's and 70's. His oldest son, Cy, is licensed and can sometimes be heard on the club's 146.62 MHz repeater as KA7BYH.

Field Day? Search Continues

The search goes on! Our President has been wearing out her telephone keypad searching for a 2011 Field Day Chairperson, but, to date, no one has been found. We are hoping that UARC will be able to make an entry in the national Field Day contest this June, but it would help a great deal if there were a chairperson to make sure all the details are taken care of.

Field Day is an annual contest sponsored by the American Radio Relay League (ARRL) for portable and mobile stations to make as many contacts as possible in 24 (or 27) hours. This year it will be held June 25 and 26.

Traditionally, we have entered from the Payson Lakes area. But to do so, we need a chairperson,

someone to make sure all the pieces come together properly. Are there any volunteers? There will be lots of help available, but someone is needed to coordinate the effort and make sure all the stations are complete and that the towers don't get erected so the two beams are aiming at each other. If you would like to help, get in touch with any of the club officers.

Dinner for Ray Larsen

Dave Raab, W7DKR, informs us that there will be a dinner honoring Ray Larsen, W7NMK, on Tuesday, April 12, 2011, at the Chuck-A-Rama at 6363 S. State Street. Ray has lived a long life and made many significant contributions to ham radio in Utah. He was the one who picked our name, *The Microvolt*, back in the late 40's. He served on the UARC Board for many years and made many contributions to us while he worked at Standard Supply Company. All are welcome at the dinner.

May Bunny-Hunt

John Hardy, K7ALA, has announced that in honor of *CQ Magazine's* annual Foxhunting Weekend, he will be sponsoring a hidden transmitter hunt for beginners on foot on May 14 at 10 A.M.. It will be held at West Valley City Centennial Park on 5600 West and 3100 South, southeast corner, just south of the WVC fitness center. John will be set up with a table near the southwest end of the park, not in a pavilion. About use of the park, John writes:

"At first they weren't very eager to allow us, but someone on the board is an amateur operator and explained what we are going to do, and so they've welcomed us with open arms. We'll have to figure out who that person is and thank him for the help and support."

Vintage Radio Night

Are you one of the folks who remembers when the principal manufacturers of amateur radio equipment were Hallicrafters, Hammarlund, National, Collins, Swan, and Drake? Perhaps you even have some gear from that period? Or maybe you remember when converted military surplus gear was commonplace? Are you of the school that “real radios glow in the dark”? Then you might be able to help us with “Vintage Radio Night” coming up in May.

On Thursday, May 12, the meeting will be devoted to radio gear from the 70’s or earlier. Unlike Homebrew Night, the focus will be on commercial equipment, although a homebrew transmitter or receiver representative of the period would be welcome as well. Anyone who would like to bring in a piece of equipment from that period is welcome to do so and tell us about it. Mark your calendar.

We are also in need of someone who remembers those days to MC the event. If you would like to help, contact one of the program chairpersons.

Correction on “Shakeup” Exercise

We announced on last month’s *Microvolt* that an exercise called “Shakeup” was slated for April of 2012. Susan Smith writes:

“That has been revised, per information I have from John Flynt, SLC Community Preparedness Coordinator in the SLC Office of Emergency Management. When I spoke with John about a week ago, he said this FEMA Region VIII exercise now is slated for 2013, although there is not a specific date yet.”

Rocky Mountain Division Convention

The 2011 ARRL Rocky Mountain Division Convention will be held August 5-7 in Taos, New Mexico, at the Sagebrush Inn Hotel and Convention Center. More details at the convention web site, <http://www.2011convention.org/>. (The domain was chosen to be easy to remember and to announce on the air.)

The program includes forums for ARES, DXing/Contesting, and QRP, homebrew and CW pileup contests, as well as new and used equipment sales.

Famous guests include Riley Hollingsworth, K4ZDH, retired FCC special counsel for amateur radio, and Chip Margelli, K7JA, famous from the “CW versus text messaging” segment on the Jay Leno show.

Planning includes a series of events for spouses and family members to take advantage of one of the most alluring destinations in “The Land of Enchantment.”

The Getoutometer

It didn’t quite make it into *QST*, but we think everyone will want to go to the ARRL website sometime during April and read about a new device that can tell you your antenna is “getting out” well despite its failure to measure up under traditional criteria such as gain and efficiency. At last, ambiguity and subjectivity can be properly incorporated into an electronic circuit. (Their controls are right on the front panel.)

To read all about this remarkable development, go to <http://www.arrl.org/the-getoutometer>.

UARC Member Wins Tech-Tip Contest

A few months ago our ARRL Rocky Mountain Division leadership issued a challenge to any interested Division member to submit five Tech Tip suggestions, with the person submitting the “best” five winning a copy of ON4UN’s *Low-Band DXing* book (4th edition, still brand new). Vice-Director Dwayne Allen, WY7FD, judged. Dwayne read through quite a number of great tips and suggestions and ultimately narrowed the best collection down to UARC member Gregg McArthur, W7GEM, of Riverton, Utah. Our Division Director, Brian Milesosky, N5ZGT, offers his congratulations to Gregg. One of Gregg’s tips, a great suggestion for finding that pesky noise that invades our receivers, was sent out in the Rocky Mountain Division Update and is included below:

Tech Tip of the Month – Locating and Curing Receiver Noise

The purpose of the Tech Tip section is to offer a platform for ARRL members like you to offer concise, technical advice and suggestions for all. Our aim is not to use this space to teach someone how to design a radio, but to offer brief hints and kinks for hams to learn from. If you have a Tech Tip you’d like to offer — any topic pertaining to ham radio is welcome — please send it in a few paragraphs to Vice-

Director Dwayne Allen, WY7FD, (<mailto:wy7fd@arrl.org>) for consideration.

The following tip is provided by Gregg McArthur, W7GEM of Riverton, Utah:

“As a new ham, I was amazed at how often there was a very loud howling noise on the bands. My cousin, W7PA, is an experienced ham and dropped by to Elmer me on a few things. He said the noise was from devices here in my home. We tuned to a noise and Paul sent me around the house unplugging electrical cords until we were able to isolate a number of noise sources. He then showed me how to use ferrite beads on the power cords to diminish the noise. I had no idea. Perhaps there is a technical guy you know about who could give us all more detailed data on cutting out the RF noise generated in our homes.”

From WY7FD: Thank you Greg. In response to the last statement, the best source I have found for these problems is the ARRL *RFI Handbook*. This book is a collection of articles written by hams over the years.

My good friend and Lab Supervisor at League Headquarters, Ed Hare, W1RFI, is the editor. By the way, Ed is one of the most influential individuals heading up our fight against BPL that interferes with our ham bands.

Operating Tips

By Lewis I. Decker

I listen regularly to the two-meter repeaters in the area and have noticed a number of new operators just getting used to using the amateur bands. I thought I could make a few modest suggestions to help these folks become better operators. We all were new at some time and could probably have

used some advice, so I will offer my suggestions here.

1. Spend most of your operating time discussing highly polarizing political and religious topics. Refer to anyone who doesn’t agree with you by a

very uncomplimentary name such as “idiots.” This will make people sit up and take notice, particularly that segment which holds such wrong views. There could easily be hundreds of people listening to a wide-area repeater at any given time, so you may be able to reach a third or half of them that are in serious need of rethinking their positions. Describing them in a forceful way will help make them realize how desperately they need to come around to your point of view. It will also help unlicensed listeners realize how relevant amateur radio discussions are and make them more likely to become amateurs.

2. Always follow your callsign with “for ID.” This helps all the amateurs who are new to the hobby understand what a callsign is for. It also helps fill the time if you really don’t have very much to say. When it’s not quite adequate for that purpose, you can substitute, “for identification as required by the Code of Federal Regulations, Title 47. Volume 5, Section 97.119, October 2010 edition.”

3. Try to forget what you might have learned while studying for the license exam. For example ignore those questions that suggest your own call sign should come last when calling another station. It’s lots more fun to watch people stumble over which call really belongs to you.

4. If you need to reach someone on a repeater that others are using, simply break into the QSO and

when someone turns it to you, call the station you are looking for, start a QSO with him, and ignore the stations that were using the repeater when you broke in. This is really the only way to get your fair share of time on busy repeaters.

5. When in a roundtable with three or more stations, don’t turn it to anyone when you’re through transmitting. Just drop your carrier or turn it to “the group.” Then sit back and enjoy the chaos, possibly a long silence followed by double and triple transmissions as the other operators figure out who should transmit next. The most fun is when two stations transmit at the same time and both take long transmissions, neither able, of course, to hear what the other is saying.

6. Pepper your transmissions with CB-isms like “What’s your twenty?” “Got a copy?” “I’m pushing 50 watts,” and “The personal here is Sam.” This will impress everyone with your operating experience.

7. Do most of your transmitting on a handie-talkie on the lowest power setting using a rubber duck antenna inside a metal car. Operators on VHF FM tend to get rather “soft” for lack of experience copying weak DX signals through noise, QRM and QSB. Putting together your transmissions despite lots of dropouts and poor signal to noise ratio will give others this needed practice.

License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone	Notes
04/20/11	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983	
04/20/11	(Wed.)	St. George	Gary O. Zabriskie, N7ARE	(435) 674-2678	
04/29/11	(Tues.)	Salt Lake C.	Eugene McWherter, N7OVT	(801) 541-1871	
05/14/11	(Sat.)	Herriman	Joel R. Stewart, KE7TGI	(801) 971-2534	
05/14/11	(Sat.)	Smithfield	Gary T. Roberts, AG1T	(435) 881-9766	
05/24/11	(Tues.)	Salt Lake C.	Eugene McWherter, N7OVT	(801) 541-1871	

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

Member of the Month: Steven Howard, KF7HXC

By Linda Reeder, N7HVF



(Photo thanks to Ron Speirs, K7RLS)

This month we are featuring Steven Howard, KF7HXC. Steven is 13 years old and is in the eighth grade. He is a new amateur radio operator, having received his Technician license in February, 2010. Steven learned about amateur radio through the LDS church, of which he is a member.

Marvin Match, KA7TPH, was teaching a class in the Pioneer Stake, which encompasses Steven's ward. Marvin teaches these classes to get new hams into the hobby. There were ten people in this class. Steven and his grandmother, Janice Collins, took the class and both of them passed. Janice's call sign is KF7HWV.

After they received their licenses they joined UARC. Steven really enjoys coming to the meetings. Steven says they have attended every meeting since February of last year. His favorite meeting is Homebrew Night because he loves to build things. Steven has built a robot which came as a kit.

Steven wants to be a scientist when he finishes school. He loves exploring the earth and learning how it works. He wants to get a degree in chemistry.

Steven hopes to upgrade so he can talk to people all over the world and learn about different cultures. Steven is now taking Spanish classes online.

Steven saw an ad online for a Yaesu handheld and bought it from Jeff. Steven said Jeff was his first contact. He really enjoys talking to people on the radio.

Steven and his grandmother, Janice, are the only ones in their family who have their ham licenses. Steven has a younger sister, Kichaela, who is ten years old.

Steven, we wish you the best in all of your endeavors, especially upgrading your ham license.

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