

# The *Microvolt*

October, 2015



## 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 \$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, 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 \$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, 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 2015 Board

President: Clint Turner, KA7OEI	801 566-4497
Executive VP: Rick Asper, AC7RA	801 865-1693
Vice Pres: Brett Sutherland, N7KG	801 298-5399
Secretary: Dick Keddington, KD7TDZ	801 274-9638
Treasurer: Chuck Johnson, WA7JOS	801 268-0153
<i>Microvolt</i> Editor: Gordon Smith, K7HFV	801 582-2438
Asst. <i>Microvolt</i> Editor: Mary Alexander, KF7QVL	801 347-3220
Program Chairperson: Morris Farmer, AD7SR	801 278-4966
Program Chairperson: Chuck DeWitt, W7DTO	435 882-9002
Imm. Past Pres: Linda Reeder, N7HVF	801 364-7006

## 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: 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>

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



# The Microvolt

The Official Publication of the Utah Amateur Radio Club, Salt Lake City, Utah  
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## October Meeting: Homebrew Night

Homebrew Night is coming on October 8! Of course we mean the ham radio meaning of “homebrew,” not the one that ATF agents would be interested in. It's the meeting of the year in which operators bring in and show off equipment they have built themselves.

If you have built something that can be used in amateur radio (or are planning to before October 8), be sure to bring it in and tell us about the design and functionality. If it's something that is too large to bring in (for example, your 160-meter beer-can Yagi) then bring photos and/or drawings that will show the audience what it is and how it works. Everyone will get a few minutes to tell about his entry.

Good homebrew projects include power supplies, speech processors, remote antenna switches, keyers, VHF converters and transverters, and antennas. It should be something that has an amateur radio application and has not been shown at previous UARC Homebrew Nights. There will be some goodies to take home for those that show a project.

Even if you haven't built anything lately, you will probably want to come out and see how creative some of your fellow operators can be.

The meeting will be on Thursday, October 8, at 7:30 P.M. in room L103 of the Warnock Engineering Building. To reach the “L” three-digit numbered rooms, take the elevator in the southwest corner of the main floor down to level “L1.” (The elevators near the east entrance don't go there!)

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 fall, 2015, meetings will be in room L103 on level “L1.” See the map at <http://user.xmission.com/~uarc/meetmap.html> for information on finding the building. The room number varies depending on availability. Parking lots circled in green are ones where you can park without needing a University permit.

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 October get-together will be at “The Village Inn,” 910 E. 400 South in Salt Lake City.

## Latest News

### Our Cover

This month’s cover shows the net control facility for the Wasatch Front 100-mile Endurance Run, held September 11 and 12. Sitting at the operating position is Brett Neilson, KC7IIB. More on Wasatch on page 5. (*Thanks to Taylor Brinton, KE7BME, for the photo.*)

### Proposed Dues Increase

Back in our June issue we published an item written by our Treasurer, Chuck Johnson, WA7JOS, explaining why the officers believe it is time for a dues increase. In summary, we were able, last year, to spend a few thousands of dollars to replace antennas on our 146.76 repeater. We were able to take the funds from our reserves, but the reserves are not getting replenished, so we may be in trouble for future needs. We have received no comments on the issue since that time.

As reported last month, the October meeting will be the time when UARC members can vote on the following proposal recommended by the Board of Directors:

As of January 1, 2015,

- Regular membership dues would become \$20.00 per year;
- Additional family-member dues would become \$12.00 per year;
- Lifetime membership would be offered at 25 times the annual dues for regular membership.

In addition, until January 1, 2016, it would be possible to pay in advance for any number of

years of membership at the old rate of \$17.00 per year.

### Swap Meet October 10

Who can resist a swap meet? The Bridgerland Amateur Radio Club is having their annual “Swaptoberfest” on Saturday, October 10, at 8 A.M. Admission and tables are free. The location is:

Cache County Fairgrounds Pavilion  
450 W. 500 South  
Logan, Utah

Talk-in frequencies are:

147.27 (PL=103.5)  
146.72 (PL=103.5)  
927.5125 (offset = -25 MHz; PL=103.5 Hz)

### ARES/RACES Conference Oct. 31

The annual ARES/RACES Conference for those involved in emergency preparedness, usually held in November, will be held this year on Saturday, October 31. This all-day conference is for RACES (Radio Amateur Civil Emergency Service) and ARES (Amateur Radio Emergency Service) members. Register by going to <https://www.utah.train.org/> and logging in or setting up an account and then searching for “RACES.” Registration is required.

Location is the Davis Conference Center, 1654 N. 700 West in Layton. The conference will run from 8 A.M. to 4 P.M.

## Elections Coming

During October the UARC Board of Directors will be attempting to come up with a list of nominees for officers for 2016. Unfortunately, they don't know everyone in the club and may (in fact probably will) overlook some likely candidates who would be

willing to serve and capable of serving in various offices. If know some folks who could benefit the club in leadership positions or (better still) if you would like to volunteer, please get in touch with any of the current officers. We would love to find some new blood with new ideas and new energy!

## License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone
10/03/15	(Sat.)	Salt Lake City <sup>1,4</sup>	Gordon Smith, K7HFV	(801) 582-2438
10/07/15	(Wed.)	Ogden	Rick Morrison, W7RIK	(801) 791-9364
10/08/15	(Thu.)	Logan	Richard D. Elwood, KE7GYD	(435) 753-4360
10/10/15	(Sat.)	Hurricane <sup>2</sup>	Gary O. Zabriskie, N7ARE	N/A
10/17/15	(Sat.)	Farmington	Gary L. Davis, KE7MQF	(801) 298-3127
10/21/15	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
10/21/15	(Wed.)	St. George <sup>2</sup>	Gary O. Zabriskie, N7ARE	N/A
10/24/15	(Sat.)	Logan	Richard D. Elwood, KE7GYD	(435) 753-4360
10/27/15	(Wed.)	Salt Lake City <sup>3</sup>	Garth Wiscombe, W7PS	(801) 558-5936
11/18/15	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
11/18/15	(Wed.)	St. George <sup>2</sup>	Gary O. Zabriskie, N7ARE	N/A
11/24/15	(Tue.)	Salt Lake City <sup>3</sup>	Garth Wiscombe, W7PS	(801) 558-5936
12/02/15	(Wed.)	Clearfield	Mike Youngs, KK7VZ	(801) 573-3922

<sup>1</sup>Preregistration required. Check with the contact person before the test session.

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

<sup>3</sup>New location: Senior Center at the Columbus Center, 2530 S. 500 East

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

## Hams Supply Communications for Wasatch-100

For more than the 30<sup>th</sup> time, Utah amateur radio operators provided voice communications and runner tracking for the annual Wasatch Front 100-Mile Endurance Run, one of the original four ultra-marathons in the country. The 2015 event happened September 11 and 12.

Even for those of us who have helped with Wasatch for a number of years, it can be hard to get our heads around the concept. People *run* 100 miles. No, it's not a relay. No, neither horses nor bicycles are involved. Every person that finishes

the race has run the entire 100 miles on his own two legs in 36 hours or less, gaining and losing over 25,000 feet of elevation in the process. And people do this voluntarily. It's not a Nazi torture strategy. Would-be participants put their names into a lottery for the privilege of competing. They come from many states and even other countries.

Part of the beauty but also the difficulty of the event is that very little of the course is on roads. Most is on back country dirt trails, some of them rarely traveled and many outside cell phone

service. This means that administration of the run must include provision to locate and assist any runners who become lost, injured, or ill.

In the days before amateur radio support, the National Guard swept the course on the day after the race just to make sure there weren't any runners still out on the trails trying to find their way back to civilization. Now, things are quite different.

This year there were 313 runners to keep track of as they went through the 15 aid stations toward the finish line. The principal duty of the amateur radio operators is to make sure that the times each runner arrives at and leaves each aid station are entered promptly into a computer at the finish line. The amateurs at the aid stations communicate with this computer using a packet radio network set up just for the event. The network involves at least seven intermediate nodes, some hiked into place on mountaintops just before the race..

The database of times that is created is valuable in a number of ways:

- Runners overdue at a checkpoint can be spotted rapidly and search parties sent out if necessary.
- Runners' crews can check their progress and know when to meet their runners at various checkpoints.
- Runners can find the status and location of friends or relatives who are also running.
- Each runner can get a list of all his or her split times to evaluate performance.
- Aid stations can be confident when they shut down that every runner who needs the station has been through it.
- Anyone interested in the race can access the information via Internet and find who the frontrunner is and where he or any other runner is on the course. (Midway through the run, the web site had had over 200,000 hits!)

Voice communication is handled via a segment of the Intermountain Intertie. Among other uses, it is used to notify the Race Committee of unusual situations and get decisions on how to handle them.

From the amateur radio perspective this year's event went very well. The packet network and associated software were designed principally by Kirk Boman, KD0J. It has been upgraded, fine-tuned, and extended over the years as the number of runners has increased. This year the system worked very smoothly despite the potential need to enter nearly 10,000 in and out times. At least one runner commented that Wasatch had the best runner tracking system of any race he had been involved with.

A new feature this year was that the internet inquiries were hosted on a commercial server farm. The demand had gotten too great for anyone's home server to take care of it.

For the second year, there was a course "sweep team" that covered the course behind the last runner, making sure no one was in trouble and that trails were left in good condition. It comprised, partially, some would-be runners who might not have fared well in the lottery. This year the sweep team coordinated well with the ham radio system and their positions were well known.

For several years, Claude Grant, WC7G, has been in charge of coordinating the efforts of the amateur operators. He wants to thank everyone for their incredible efforts, man-hours, and use of their equipment. The ham efforts ensure the safety of the run and it would be hard to imagine Wasatch without them. There are likely thousands of dollars worth of equipment and thousands of man-hours involved, yet it is all provided free of charge due to the hams' volunteer efforts.

# Excerpts from Rocky Mountain Division News

By Brian P. Mileschosky, N5ZGT

## 2016 ARRL Rocky Mountain Division Convention — Mark your Calendars

The 2016 ARRL Rocky Mountain Division Convention will be hosted by our good friends in the Colorado Section on May 13-15, at an incredible new venue: Keystone Resort, located west of Denver, Colorado.

Planning is underway; keep an eye on these spaces for more details as they become available, otherwise please mark your calendars to join many hams from across the Division in Colorado.

## Jamboree on the Air

Jamboree on the Air (JOTA) is an annual Scouting event that uses amateur radio to link Scouts around the world, around the nation, and in your own community. Held on the third full weekend of October each year, this worldwide jamboree requires no travel, other than to a nearby radio amateur's ham shack.

JOTA typically attracts upwards of 750,000 Scouts participating from some 6,000 stations in 150 countries across the globe. In the United States, 13,326 Scouts and visitors took part in JOTA 2014. This year's JOTA will occur on the ham bands October 16-18. If you are interested in participating in JOTA, or hosting a JOTA opportunity for your local Scouting unit, rally the ham club and reach out to nearby Scout troops and packs!

There are many ways for you to introduce the world of ham radio to scouts during JOTA. Contact your local Scout council office

(<http://scouting.org/LocalCouncilLocator.aspx>)

and ask how you might be able to help. Contact your local Scout troop/pack leader and ask if they'd like to spend time talking to fellow scouts all over the nation or world this weekend. If your club has a club station, or the ability to set up in a public location Field Day style, invite scouts and their parents to get on the air

from it. Or, at the very minimum, simply get on the airwaves, call "CQ JOTA" (or answer similar CQs from other stations) and enjoy QSOs with eager scouts from all over.

Additional details about JOTA, including suggested calling frequencies, JOTA patch order information, JOTA activity ideas, and more can be found at <http://www.k2bsa.net/jota> and <http://www.arrl.org/jamboree-on-the-air-jota>

## ARRL “Clarity on Amateur Radio Parity” Statement Separates Fact from Fiction

The ARRL has taken steps to address objections and concerns recently raised by representatives of community associations about the Amateur Radio Parity Act of 2015 — H.R. 1301 and S. 1685 — in a document that's been made available at:

[http://www.arrl.org/files/file/Regulatory/Clarity on Parity.pdf](http://www.arrl.org/files/file/Regulatory/Clarity%20on%20Parity.pdf).

## Committee Seeks Feedback from UHF Operators

The ARRL Ad Hoc Subcommittee on VHF and Above Revitalization is exploring ways to expand participation in the August UHF contest. To that end they are asking for responses to the following questions:

- Are you now active on UHF?
- How often do you currently operate in the ARRL UHF contest ? never, occasional, or always?
- If you do not currently participate, why not?
- If you do not currently participate, what changes might compel you to participate in the future?
- What are your ideas for attracting more amateurs to UHF operation in general?

Please submit your comments by October 1, 2015 to the following email address: <mailto:vhf-input@arrl.org>

The members of ARRL's Ad Hoc Subcommittee on VHF and Above Revitalization expressed its gratitude for the many comments they received

concerning their initial round of VHF+ contest rule changes.

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## **Member of the Month**

**William Rouleau, AE7UI**

**By Linda Reeder, N7HVF**

This Month we are featuring William (Bill) Rouleau, AE7UI. It was Morris Farmer, AD7SR, who got Bill interested in amateur radio. Bill and Morris's friendship goes way back. They have known each other for 23 years. Both of them are members of the Coast Guard Auxiliary.

Bill says Morris twisted his arm three times to get him to get his amateur radio license. Bill said that it was that Morse Code that kept him from getting his license. He said his ears just couldn't adjust to hearing that code. He was very excited when they finally did away with the Morse Code as a requirement of getting a ham license. Bill and Morris received their Technician licenses on the same day at the same test session in December, 2005. Bill received his Extra Class license last year, 2014.

Morris and Bill are teaching an upgrade course for those hams wanting to get their General licenses. The course is taught from 7 to 9 P.M. each Wednesday evening at Morris's "shack" and will run for about eight weeks. It began on Wednesday, September 16. They are also teaching a

Technician class which started Monday evening, September 14, from 7 until 9 P.M. at Morris's house. They plan on teaching an Extra Class in January of next year.

Bill enjoys building and putting things together, especially antennas. Bill mostly operates on two meters. He is a member of UARC and the VHF Society. His membership in the Coast Guard Auxiliary goes back 32 years and the Coast Guard still keeps Bill busy on the weekends. He is on boat patrol at Bear Lake making sure everyone is safe out on the water. Boating is one of Bill's favorite hobbies. He also enjoys wood working.

Bill worked for Northrop Grumman in the tool crib for 38 years and is now retired. Bill and his wife, Jean, have been married for 48 years. Jean has her Technician license. Her call sign is KF7JWY. They have one son who is grown now. They could never get him interested in the hobby.

Bill, thank you for your contribution to amateur radio.