

The *Microvolt*

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Prologue

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 in room 1230.

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

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.

Publication: The Microvolt is the official publication of the club. Deadline for submissions to The Microvolt is the 24th of each month prior to publication. Submissions by email are preferred (uarc@xmission.com), but other means including diskettes and typewritten submissions can be mailed directly to: Gordon Smith, 632 University St., Salt Lake City, UT 84102-3213. All submissions are welcome but what is printed and how it is edited are the responsibility of the Editor and the UARC board. 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.

UARC 2009 Board

Table listing UARC 2009 Board members and their contact information, including President John Hardy, Executive VP Andrew Madsen, and various committee chairs.

Committee Chairpersons and Members

Table listing committee chairpersons and members, including 'Book Lady' Fred Desmet, Historian Ron Speirs, and various engineering roles.

Contents

Table of contents listing sections such as Prologue, Steak-Fry: July 18, Latest News, AD7KG on the 7th Area 2009 QSO Party, Member of the Month: KD7UM, UARC Member Gets Achievement Award, '76 Repeater Back on the Air, and Examination Schedule.

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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The Microvolt

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Steak-Fry: July 18

Thursday night meetings are on hold until September 10, when we begin the fall season with meetings on the *second* Thursday of each month. But the big event in July is the annual UARC Steak-Fry and Swap Meet to be held on Saturday, July 18. This event has been a tradition since about 1962 and is a great chance to get together with other hams for a picnic in the cool mountain air. Cost this year is \$15 per person for the entire steak dinner. If you haven't yet gotten your reservation in, you have until July 10. Contact the Secretary as per information on page 2.

The location is "The Spruces" campground in Big Cottonwood Canyon (the one that goes to Brighton and Solitude). The Spruces is on the right about 10 miles up from the mouth of the canyon. We will be in Group Area 7. (Tell that to the folks at the entrance station.) Be sure to bring your own plate and silverware. There will be plastic and paper available, but folks most find a steak easier to handle using more serious plates and utensils.

People usually start arriving about 2 P.M. for swapping, show-and-tell, and eyeball QSOs. Dinner should get going around 5 P.M.

Latest News

Field Day is Over

UARC's annual entry in the national Field Day contest was generally successful, although Murphy made appearances in a number of places including missing microphones, unknown combination to a toolbox lock, a keyer than had worked in '08 but not this year, traps installed upside down, and a coax connector with about 20 dB loss. The site was our traditional one near Payson Lakes and is the subject of our cover photo this month. Our 70-foot structure seems to tower over Mt Loafer.

We will have more details in a future issue, but a preliminary tally indicates we should have at least 300 more points than last year.

Many thanks to everyone who helped. Field Day Chairman Andy Johnson, KE7UOL; and UARC President John Hardy, K7ALA, did an enormous amount of work arranging details and moving a monstrous pile of equipment up to the site and back.

KB7WVI, SK

Art Harmon, KB7WVI, became a silent key on Saturday, June 6, 2009. Art was first licensed in 1993 and was quite active on local repeaters for many years. He drove tour buses for a number of years as a part-time job after his retirement, and was sometimes heard on the air from his bus, waiting for his passengers. He was often heard on the Intermountain Intertie or the Sinbad System keeping truckers company as they made their way over many highway miles.

AD7KG on the 7th Area 2009 QSO Party

By Jed W. Petrovich, AD7KG

Some of you reading this article may be unfamiliar with the concept of a “QSO Party” and radio contesting in general. So, perhaps a brief explanation would be in order.

Many contests take place on the HF frequencies. Specifically, 10, 15, 20, 40, 80 and 160 meters. However, the 7QP also includes 6 and 2 meters. Some contests allow all modes (SSB, CW, Digital), while others may specify a single mode. Operating times can vary from a few hours to 48 hours and sometimes more. The exchanges are brief and just long enough for both operators to pass the required information. Scores are calculated based on the number of contacts made, along with any multipliers. These details are outlined in the contest rules. I always check the latest rules prior to operating any contest.

The 7th Area QSO Party, or 7QP, takes place on the first full weekend of May. The objective is to have an operator “activate” every county in the 7th call district. The district consists of the states of Washington, Oregon, Idaho, Nevada, Arizona, Montana, Utah and Wyoming. There are 259 counties, with 29 in Utah. In 2008, there were 203 counties activated (25 in Utah) during the 18-hour contest. For more information, please visit the 7QP web site at <http://7qp.org>.

This was my third year operating in the 7QP. The first year, 2007, I ventured out with a homebrew portable dipole antenna and worked from Tooele County. I also made some contacts after returning home. Last year, I worked the Juab/Tooele County line, which placed me in the category of 7th Area County Expedition. Working a dual county provides double points for both operators. This year, Bob Carter, WR7Q, and I made plans to work the Juab/Tooele county line. However, the

location was different and somewhat more remote than my solo operation last year.

We set out Thursday night (April 30th) for the operating site, which was west of Tintic Junction, near Eureka, Utah. We traveled on about 14 miles of dirt road to get to our location. We arrived in time to set up camp before dark and spent a pleasant evening. Friday morning, we set up our two antennas. The larger antenna was an 80-meter inverted vee suspended from about 48 feet of fiberglass mast. The second antenna was my Buddipole set up in a vertical configuration and tapped for 20 and 40 meters. We were also able to make a few “test” contacts on Friday just to make sure everything was working. After several QSOs, including one into Italy, I figured my signal was getting out.

Because of the close proximity of the antennas, Bob worked CW and I worked mostly SSB. However, I did make a number of CW contacts when Bob moved to a lower band.

Prior to leaving civilization, we had been keeping a close eye on the weather forecasts and were expecting some wet weather. However, we had a bit more precipitation than the forecasts predicted. Saturday, we got up around 6:00 AM and had some breakfast. We wanted to be ready for the start of the contest at 7:00 AM. It had been raining and the wind had been blowing during the night, but I was still surprised to find the inverted vee antenna on the ground. It was still raining, so it was decided that I should try to make a few contacts while we waited for the weather to clear. I fired up my rig and made my first contact just after 7:30 AM.

About an hour later, the rain let up enough for us to erect the inverted vee so Bob could operate. We

also put the bottom of the mast on a plywood board so it wouldn't sink into the mud. (The saturated soil under the mast was likely one of the factors that contributed to antenna coming down during the night.) It took the better part of an hour for us to reset the antenna. Finally, we had both stations on the air.

It was still raining off and on, but we were logging contacts. However, just after 2:00 PM, we could hear lightning crashes on the radios, so we disconnected the antennas and suspended operations for over two hours. After this forced break, we were both able to carry on until the contest ended.

I awoke again Sunday morning about 4:00 AM to the sound of rain. It rained the rest of the morning until sometime after 9:00 AM. After breakfast, we made a trial road run (without the trailer), which didn't go so well. We had little choice but to wait and hope the road would dry up enough so we could make our way out. Well, fortunately, the sun did shine and there was a nice breeze. We were able to pull out around 1:30 PM that afternoon and had little difficulty making our way home.

In the end, I made 210 contacts and my "unofficial" score was nearly 36,000 points, triple

my 2008 score. The increase in score was due to the diversity of stations that I logged ("multipliers"), along with a number of CW contacts. (In the 7QP, SSB contacts score 2 points, CW contacts are 3 points.) At one point, I was able to get a pretty good "run" going on 40m SSB. (A run is when many stations are answering an operator's CQ and contacts are made in rapid succession.) It got pretty exciting when I had multiple stations calling me, or in other words, a "pileup." My logging software, N1MM, showed I was making two to three contacts per minute during this time. Not too bad for a small vertical antenna and 100 watts, including the longer, time consuming, dual-county exchange. Stations were calling from coast to coast, including Alaska and the southern tip of Baja California. At other times, while scanning the bands for calling stations, I made several contacts into Europe, including three from Italy.

Granted, HF contesting and/or working portable is not for everyone. However, I really enjoy the challenge of operating from a remote station. One of the bonuses is the low QRM or man-made interference. Please feel free to contact me if you would like more information, especially if you have an interest in this type of activity.

Member of the Month: Dave Christensen, KD7UM

By Linda Reeder, N7HVF

This month we are featuring Dave Christensen, KD7UM. Dave was introduced to amateur radio by two totally different individuals Vern Campbell, the husband of his cub scout den mother, and Bob Lambert, N7DBL, who worked for him. Bob Lambert, N7DBL, let Dave borrow his amateur radio for the weekend to listen to. Dave was so excited on Monday morning that Dave asked Bob what he needed to do to get his license. Bob gave Dave the books he needed to

study. In the spring of 1983 Dave received his Novice license. His call sign was KA7PRW. In the fall of 1983 Dave went to the National Guard armory where he obtained his Advanced license. Back in 1983 you had to take your amateur radio test from the FCC. The FCC only came to Salt Lake twice a year. Dave said if you failed the test you could always go to Denver or Idaho if you didn't want to wait until the FCC came to Salt



Dave Christensen, KD7UM, at his station

Lake again, but you had to wait 30 days before you could be retested.

When I asked Dave what he liked best about amateur radio he said the people involved in the hobby and the diversity the hobby has to offer. It includes Morse Code, voice, digital ATV, the low bands, two meters, 70 centimeters, 220 MHz and six meters.

Dave was impressed with the meeting UARC had on APRS and is looking at getting involved in it. Just recently Dave has added some tube gear and amplifiers to his ham shack and he is enjoying the great radios of the past. Dave enjoys Field Day when he can get there.

Dave is really involved in emergency communications. Dave is the President of the

Mercury Amateur Radio Association or MARA. He is also a member of UARC and the VHF Society. Other hobbies that Dave enjoys are: boating, camping, hunting, and RC airplanes.

Dave and his wife Karen have been married for 37 years. They have four sons and two of them have their ham radio licenses: Matt, KB7YEV; and Bryan, KB7YET. Dave's wife, Karen, also has her ham radio license, KB7YEU. Dave and Karen have seven grandchildren and they are expecting the eighth grandchild sometime this summer.

Dave works as a satellite engineer for the LDS Church which has ten satellites giving service to 85 percent of the world. Dave also works with the Red Cross. Dave, we appreciate all of the contributions you have made to amateur radio.

UARC Member Gets Achievement Award



Award Winner Clint Turner, KA7OEI

The annual ARRL Rocky Mountain Division Achievement awards were presented at the Rocky Mountain Division Convention, May 29-31, in Estes Park, Colorado. One of the three awards, the Technical Achievement Award went to Clint Turner, KA7OEI, a member and former board member of UARC.

Clint was cited for “Technical contributions made towards the advancement of communications via

10 GHz as well as light (terahertz communications).” The announcement goes on:

“[He] has developed ways to improve performance to the Montreal Doppler unit used within the direction finding community. Has developed several circuits for use in low frequency (LF) and medium frequency (MF) communications, including noise filters, beacons and more.”

Many UARC members may already be familiar with Clint’s work through the pages on the UARC web site about repeaters, direction-finding, and amateur television. Additional material can be found on Clint’s personal web site at <http://ka7oei.com>. His work with the Yaesu FT-817 was once the subject of a mention in *QST* magazine.

The “Ham of the Year” award was won by another Utahn, Darryl Hazelgren, K7UT, for his work in contesting and Dxing. See:

<http://www.rockymountaindivision.org/awards.html>.

'76 Repeater Back on the Air

by Gordon Smith, K7HFV

In late April we got word indirectly that our receiving antenna for the 146.76 MHz repeater had suffered some lightning damage. Repeater Engineer, Randy Finch, K7SL, and I went to the site to confirm the problem and found that, sure enough, only a stub of the original \$400 Sinclair colinear antenna remained on the tower. We searched the field near the tower and found two pieces of the fiberglass-encased antenna. The two did not mate, so we guessed that a middle section might have entirely vaporized. This left us with the need for a new antenna and someone agile and brave enough to do an installation at the 120-foot level. We left the repeater with an indoor whip

connected to the receiver. This made the repeater usable to stronger stations from Utah County, but difficult for most stations in the Salt Lake Valley.

Clint, KA7OEI, and John, K7JL, did some investigating and found that Dave Williams, WA7GIE, had an antenna he was not using and that might fill the bill. It was a collinear made of two folded dipoles. The only problem was that it was at a remote site and needed to be brought down to the valley.

Dave had a chance to retrieve the antenna by mid-June, and with Field Day approaching, UARC

President John Hardy, K7ALA, was anxious to get '76 back in full operation to help guide mobiles to the Field Day site. Program Chairman Bryan Mogensen, W7DBM, agreed to do the tower work.

A date was set for the installation and John Hardy dropped by the workplace for Clint and John Lloyd to pick up the new antenna. When K7ALA arrived, Clint and John thought it might be good to do a quick SWR check. Oops. The antenna appeared open. Further investigation showed that the phasing harness, the collection of various lengths of coax of various impedances that converts two 300-ohm dipoles to a single 50-ohm load, had gotten water into it and was not usable.

It is believed possible to order a replacement harness, but there was no chance it could be obtained in time for Field Day, which at that point was only a week away. On to plan B.

On the evening of Friday, June 19, Clint, KA7OEI, constructed a trusty J-pole from copper water pipe. Then on Monday, June 22, the new J-

pole was hoisted up to the 120-foot level of the tower on Lake Mountain. Bryan Mogensen, W7CBM, officiated placing the antenna in its mount, assisted by John Hardy, K7ALA; and John Clark, N7SFN. Randy Finch, K7SL, and the author mostly offered moral support from the ground.

A few tests showed that the SWR looked good and that the repeater could be accessed from West Jordan with very low power. Bryan did some exploring and found the missing (fourth) piece of the old antenna some distance from where the others were found. The lightning hit must have been spectacular.

As this is written in July, there has still been no word about the price of a replacement phasing harness, but some analysis shows that it wouldn't be too hard to build our own. So with luck, by the time the summer is over, the dipole array may be operational giving about 3 dB more gain than the J-pole. In the meantime, though, the repeater appears quite usable, including the IRLP function.

Examination Schedule

07/15/09	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
07/15/09	(Wed.)	St. George	Gary Zabriskie, N7ARE	(435) 674-2678
07/28/09	(Tue.)	Salt Lake City	Eugene McWherter, N7OVT	(801) 541-1871 ¹
08/01/09	(Sat.)	Salt Lake City	Gordon Smith, K7HFV	582-2438 ¹
08/19/09	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
08/19/09	(Wed.)	St. George	Gary Zabriskie, N7ARE	(435) 674-2678

¹ Preregistration required. Contact the indicated person.

Reminder: Beginning in September, meetings are on the *second* Thursday.