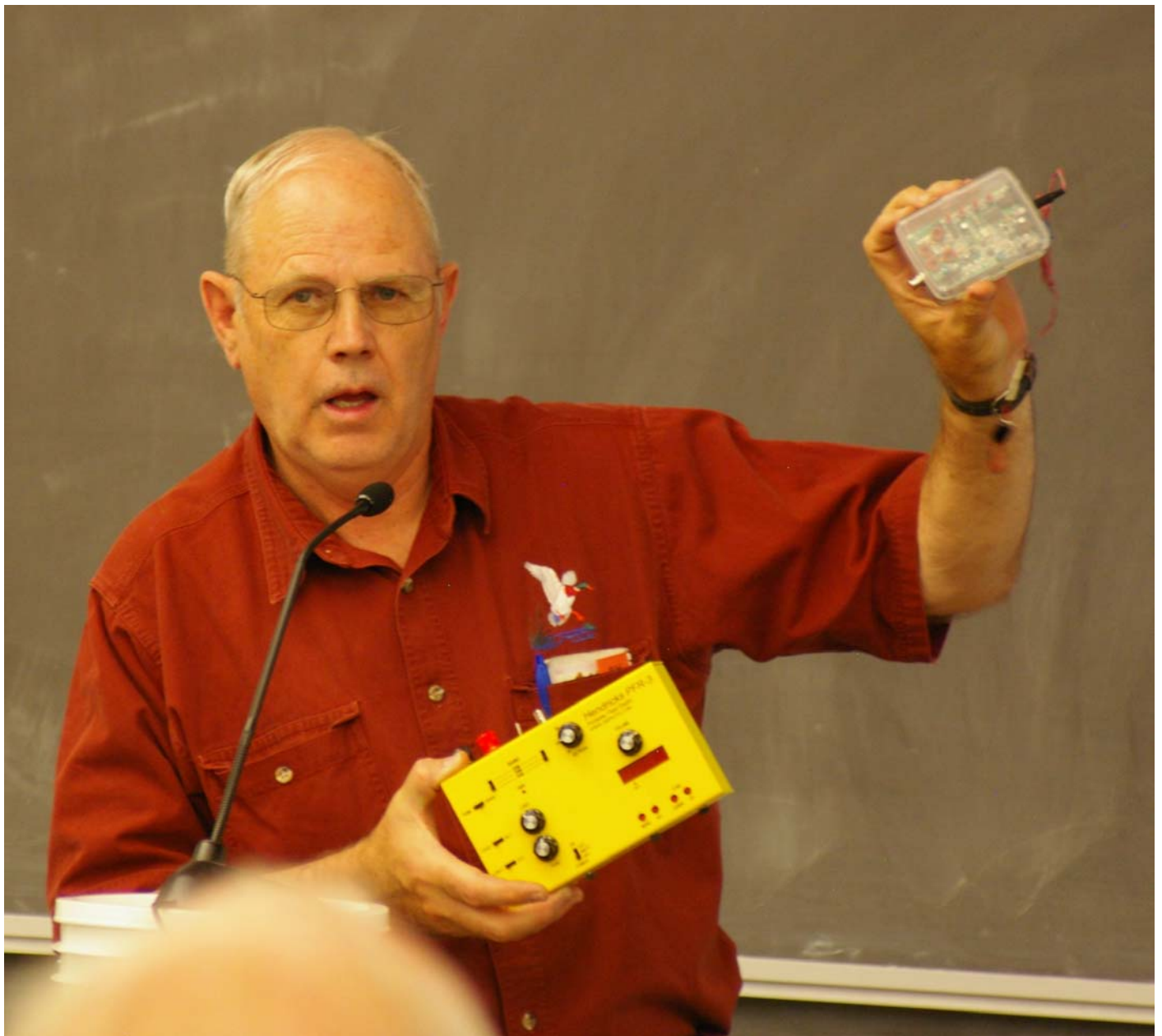


The *Microvolt*

October, 2011



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, 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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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://www.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/>
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October Meeting: Homebrew Night

The October UARC meeting will be one of the most popular meetings of the year: Homebrew Night. This is the night when you can show off your latest pieces of home-built equipment or just enjoy the show of items that others have built. Dale Heisler, WJ7L, a person with extensive homebrew experience, has agreed to be the master of ceremonies.

The date for Homebrew Night is Thursday, October 13. Typical kinds of projects include QRP transmitters and receivers, linear amplifiers, automatic keyers, phone patches, rig audio interfaces, and speech processors. Bring your item along and be ready to take a few minutes (and please, *just* a few) to tell us what you have built and what its features and fine points are. It should be an item to be used in amateur radio and one not shown in a previous UARC Homebrew Night.

If your project is too big to bring in (say your 75-foot tower or your 160-meter beer-can beam), bring photos and/or diagrams (preferably in a form that works with a video projector) to show us what you have done. The meeting will be held on Thursday, October 13, at 7:30 P.M., in room 1230 (the “Duke” classroom) in the Warnock Engineering building on the U of U campus.

UARC meetings are held on the second Thursday of each month at 7:30 P.M. During fall semester, they are in room 1230 (the “Duke” classroom) of the Warnock Engineering Building at the University of Utah.

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. Walk south along the east side of Merrill, then go in the north door of Warnock. See the map at 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 October get-together will be at “The Sizzler,” 371 E. 400 South in Salt Lake City,

Latest News

Our Cover

Our cover photo this month is of Bob Armstrong, N7XJ, showing off QRP gear at the September UARC meeting. The yellow box is the PFR3 transceiver from Hendricks QRP Kits. It runs five watts and has full band coverage on 40, 30, and 20 meters. Thanks to Bruce, KF7OZK, for the photo. See Bruce's article about Bob's talk on page 7.

Nominations Needed

It's the time of year when we need to begin thinking about who we would like for officers in the coming year. A nominating committee chaired by Lonnie Oaks, K7LO, is searching for people who might be interested in serving UARC during 2012. If you would like to take a try at one of the offices, or if you know of someone you would like to see in one of the offices, contact Lonnie or any of the officers.

Logan Swap Meet October 8

For those who missed the Davis County swap meet or who are wanting more opportunity to buy or sell equipment, there is another chance coming up. The Bridgerland Amateur Radio Club (BARC) announces "Swaptoberfest 2011" to be held on Saturday, October 8, at the Cache County Fairgrounds Pavilion, 450 S. 500 West in Logan. The event is free to buyers and sellers. Table setup begins at 7 A.M., and actual swapping at 8:00.

There will be awards presented including a Wouxun dual-band H-T.

There is more information, including the official event flyer with map and talk-in frequencies, in the "current news" section of the UARC web site, <http://www.utaharc.org/>.

Rocky Mountain Division Net

The ARRL Rocky Mountain Division Net has been meeting monthly for some time. The October net, however, will feature a major change. Instead of meeting on 80 meters, the net will take place on IRLP (the Internet Radio Linking Project). In a recent newsletter to ARRL members in the Division, Director Brian Milesosky, N5ZGT, announced that the October net will take place at 7:30 P.M. MDT on Wednesday, October 12, IRLP node 9871 (Denver reflector).

UARC members who can reach the club's 146.76 repeater may use its IRLP node to connect with this reflector and the net. For information about using the node, check:

http://www.xmission.com/~uarc/ab1ip_irlp.html.

More 76ers Photos

Our September issue ended with a photo taken during a picnic on Lake Mountain, the site of UARC's 146.76 repeater. Thanks to Bruce Fereday, KF7OZK, and others, there are several more pictures from the event on the club web site. See:

<http://www.xmission.com/~uarc/pic7611.html>.

The photo from *The Microvolt* is there with callsigns of the participants added by Richard Heward, KF7KGG. If you've been wanting to connect faces with some of the calls heard on the air, this is an opportunity.

K7TLX, SK

We report with regret the passing of Doug Webb, K7TLX. Doug passed away on Friday, September 2, 2011. Doug had been licensed since the 1960s and was very active on six meters.



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I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).			

License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone
10/19/11	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
10/19/11	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	(435) 674-2678
10/25/11	(Tues.)	Salt Lake C.	Eugene McWherter, N7OVT	(801) 541-1871
11/02/11	(Wed.)	Clearfield	Mike Youngs, KK7VZ	(801) 573-3922
11/16/11	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
11/16/11	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	(435) 674-2678
11/29/11	(Tues.)	Salt Lake C.	Eugene McWherter, N7OVT	(801) 541-1871

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

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

³More information at <http://utaharc.org/Exams>.

QRP From 12K

By Bruce Fereday, KF7OZK

Bob Armstrong, N7XJ, from Manti, Utah, came and shared his love of QRP (operating on low power) at the September club meeting. He recounted his experience to participate in Field Day from the tops of the Uinta Mountains. Maybe having the antenna at a high altitude would improve the QSLs. He would backpack to the chosen location on a peak at around 12,000 ft. This would require an eight-day backpacking trip and weight of the radio, antenna, and power supply would be an issue.

He decided that he could carry radio equipment if it weighed only three pounds. He chose a small 5-watt radio, a home brewed double extended zepp antenna (made from multistranded telephone wire, 300 ohm TV twin lead and fishing line). With light weight lithium AA batteries the whole rig weighed only 3.5 lbs. Field Day rules allow CW and QRP rigs to multiply contacts by 10; thus, his contacts would be worth 10 points each.

When he got to his Field day Camp he encountered several challenges to setting up for Field Day. In the Uintas, trees do not grow above

10,000 feet, so at an elevation of 12,000 feet there were no trees to hang his antenna from. Also, there is no light and the glow sticks that he planned on using did not give off enough light to operate with. Then he found out that even though it was warm in the valleys, at 12000 feet it still got freezing in the night. Operating CW in freezing cold and in the dark was infeasible and he gave up after a short while after dark. Even with these challenges he operated for 8 hours and logged over 120 contacts before the fishing line broke and dropped the antenna.

In researching his QRP trip he made several observations. Antenna height above sea level was not as important as height above mean ground level. The antenna works better up in the air. Also five watts is plenty to send DX CW, so long as the rig and antenna are tuned and working correctly. The double extended zepp antenna is a dipole antenna with an active 300-ohm vertical leg. This construction allows operation on multiple bands, even with low power.

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He commented on other trips with micro transmitters in Zion and Grand Canyon National Parks. What's important in radio is not so much power as it is frequency and antenna, along with the same for the receiver.

He showed his transmitters and tuners constructed in Altoids mint boxes, along with some kits available from QRP clubs (qrpkits.com and <http://www.azsqrptions.com/>).

He enjoys CW and QRP and enjoys sharing his passion with others.

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Bob's collection of very tiny transceivers, antenna tuners, and cases. (Photo by KF7OZK)