

# The *Microvolt*

February, 2017



## 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: 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 \$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 2017 Board

|  |              |
|--|--------------|
| President: Clint Turner, KA7OEI                  | 801 566-4497 |
| Executive VP: Lonnie Oaks, K7LO                  | 801 255-1225 |
| Vice Pres: Bruce Fereday, KF7OZK                 | 801 883-9428 |
| 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: Rick Asper, AC7RA | 801 865-1693 |
| 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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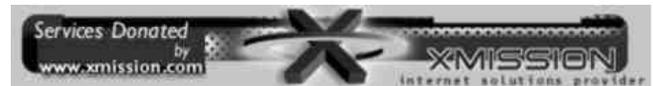
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## IRLP Information

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  
Volume 60, Issue 2, February, 2017

### February Meeting: Software Defined Radio

UARC President, Clint Turner, KA7OEL, will be presenting our February program on Software Defined Radio (SDR). Clint writes:

Even if you don't know what it is, you've probably heard about "Software Defined Radios." Usually called "SDRs," these devices are going to become even more common in the future.

Freed from the constraints of the laws of physics, you can now do, in software, what could not practically be done in the past, from having razor-sharp filters in your radio to removing noise to being able to add modes with just an upgrade of software rather than having to get a new radio.

As neat as they are, they still work the same way inside as radios from decades ago when it comes to converting signals from one form to another, so understanding the basics of what is inside that gleaming, new box isn't as difficult as it might sound. Even if you don't want to spend the money for a fancy new radio with SDR, there is still an awful lot that you can do with your PC, its sound card, and hardware that may cost less than did that last night out with the family!

Even if you can't spell "SDR" you will want to come to the February UARC meeting where we'll talk about it!

How widespread is SDR technology in ham radio gear? Does it work as well as traditional methods? How can I start experimenting with it without paying a lot of money? Clint will be answering these and other questions. He will tell us about all the ways that SDR is being used now in our hobby and is likely to be used in the future. There are commercial rigs that already use it to a varying extent, and brand new designs that are available in kit-form or pre-assembled.

The meeting will take place at 7:30 P.M. on Thursday, February 9, in room 1230 (the "Duke" classroom) of the Warnock Engineering Building.

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 meeting, during the University's spring semester of 2017, will be in room 1230, the "Duke" classroom. To find the room, if you enter through the main (east) door, just go straight down the hall to the last classroom on the right. See the map at <http://user.xmission.com/~uarc/meetmap.html> for information on finding the building. (The room number varies through the year depending on availability.)

Of course, the meeting will include the “standard” meeting features:

- Availability of ARRL books from Brett or John, the “book ladies”
- 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 Litz'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. It is held at “The Village Inn,” 910 E. 400 South in Salt Lake City.

## Latest News

### Our Cover

Our cover this month features Bob Carter, WR7Q, who presented our meeting program in January. Bob gave us a nice tour of the considerations a DXer must keep in mind regarding antennas, lots of listening, awards, spotting, propagation, and good operating practices. He ended with a list of helpful Internet sites holding information on various aspects of DXing. A version of his list can be found on the UARC web site at <http://user.xmission.com/~uarc/wr7q.html>.

*(Thanks to K7RLS for the photo.)*

### VHF Society Swap Meet Feb. 25

The annual Utah VHF Society Business Meeting and Swap Meet will be held on the morning of Saturday, February 25, 2017, at 9 A.M. This event is typically the largest swap meet held in Utah each year and features a large variety of equipment for sale and trade. Location is Building #2 of the Legacy Events Center at the Davis County Fairgrounds in Farmington. Check the UVHFS web site at <http://www.utahvhfs.org> for more information including directions, maps, entry cost for non-members, and details of time and cost for those who wish to set up tables.

Those who are VHF Society members (or who join at the event) will receive the a copy of the annual *VHF Society Directory*. The directory lists contact information for the members plus every

properly coordinated repeater in the state of Utah. It also contains information about linked systems along with maps.

The VHF Society gives financial support to a number of repeaters spread across Utah, including most of the Utah repeaters that are part of the Intermountain Intertie. Many of the repeaters are operated in small rural areas that don't have a large membership to support keeping a repeater on the air. UVHFS provides a means that some funds from the more populous areas of the state can be used to support repeaters in parts of the state that very much need repeater coverage.

Another function of the VHF Society is to provide frequency coordination for the state. One of the officers elected each year is the Frequency Coordinator, who makes sure that multiple repeaters are not operated on the same frequency from sites that will cause them to interfere with one another. This process is trickier in states like Utah having repeaters on high mountain peaks with wide coverage areas and potentially wide interference areas.

Members and prospective members are encouraged to pay their dues in advance of the event. This will allow them to get in rapidly on the day of the swap meet without having to wait in line to pay dues or entry fees.

## **Amateur Radio Parity Act Reintroduced**

If you are among the amateur radio operators who cannot put up HF antennas due to covenant restrictions on your home property, you will be happy to know that the Amateur Radio Parity Act has again been introduced into the U.S. House of Representatives, this year as HR555. The 2016 version of the bill was approved unanimously by the House of Representatives, but fell one vote short of being passed in the Senate. With a new Congress now in session, the process must be started again from scratch.

The bill with this year's number has been introduced by Rep. Adam Kinzinger (R-IL) and has co-sponsors Joe Courtney (D-CT) and Greg Walden, W7EQI (R-OR). Walden is the Chairman of the House Committee on Energy and Commerce, the committee to which the bill has been referred. It will start in the subcommittee on Communications and Technology.

ARRL's Board of Directors will be meeting January 20-21 and HR-555 is expected to be the prime topic at that meeting.

## **New Privileges on 5 MHz?**

The American Radio Relay League (ARRL) has asked the FCC to take advantage of an action taken by the World Radio Conference in 2015 and allocate a contiguous band in the 5 MHz region, 5351.5 to 5366.5 kHz. in addition to four of the five spot frequencies now allowed. (The fifth frequency is included in the proposed new segment.) They suggest that the new segment should operate under the same rules as the current spot frequencies including the power limitation of 100 Watts PEP radiated power referenced to a half-wave dipole.

The WRC rules only allowed for 15 watts EIRP which the petition suggests is inadequate and

“completely defeats the entire premise for the allocation . in the first place.”

Comments will be accepted when a Rulemaking (RM) number is assigned.

## **WIMU '17: June 16-18**

After a number of years of non-existence, the Wyoming-Idaho-Montana-Utah (WIMU) Hamfest will be held this year at Garden City, Utah. John Jacobs, W7DBO, writes:

“This great traditional hamfest will be held in Bear Lake, Utah, June 16-18, 2017. Bear Lake is a great destination point for families to vacation while attending the hamfest. Activities will be held at the Garden City Conference Center and Park. Activities include: Outdoor vendors, swap meet, women and youth/child activities, fox hunt, special event station, and much more is planned for the hamfest.”

Information about accommodations is now on the WIMU website. For that and other hamfest details, see:

<http://www.wimuhamfest.org/>.

## **Digital Communications Conference: March 25**

The Utah Digital Communications Conference will be held March 25th, 2017, in Sandy, Utah. Inspired by ARRL and TAPR National DCC conference, Utah is hosting an event similar in nature. The conference will be a fusion of amateur radio communications and maker topics. This conference will focus on the amateur radio hobby that surrounds utilizing digital modes. Current emerging topics such as digital modes for emergency communications and building your own components will be presented.

Go to <http://www.wimuhamfest.org/> to register and for more information

-John Jacobs, W7DBO

## UARC 2016 Financial Statement

Submitted by Chuck Johnson, WA7JOS, Treasurer

| Income                       |                  | Expenses              |                  |
|------------------------------|------------------|-----------------------|------------------|
| ARRL Dues                    | 734.00           | Administrative        | 17.10            |
| Book Sales                   | 4,590.90         | ARRL Memberships      | 614.00           |
| Donation                     | 117.00           | Books                 | 4,044.35         |
| Dues                         | 3,763.70         | Capital Equipment     | 720.92           |
| Int Inc                      | 116.42           | Field Day             | 520.79           |
| Steak-Fry Income             | 978.00           | Insurance             | 200.00           |
|                              |                  | Meeting Expense       | 327.47           |
|                              |                  | <i>The Microvolt</i>  | 2,950.72         |
|                              |                  | PayPal Fees           | 74.85            |
|                              |                  | Repeater              | 546.79           |
|                              |                  | Sales Tax             | 337.92           |
|                              |                  | Square Inc Fees       | 61.81            |
|                              |                  | Steak-Fry             | 965.31           |
|                              |                  |                       |                  |
| <b>Total Income</b>          | <b>10,300.02</b> | <b>Total Expenses</b> | <b>11,382.03</b> |
|                              |                  |                       |                  |
| <b>Net Income: -1,082.01</b> |                  |                       |                  |

## License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

| Date     | Day    | City                          | Contact Person            | Phone          |
|----------|--------|-------------------------------|---------------------------|----------------|
| 02/01/17 | (Wed.) | Ogden                         | Rick Morrison, W7RIK      | (801) 791-9364 |
| 02/04/17 | (Sat.) | Salt Lake City <sup>1,4</sup> | Gordon Smith, K7HFV       | (801) 582-2438 |
| 02/11/17 | (Sat.) | Hurricane <sup>2</sup>        | Gary O. Zabriskie, N7ARE  | N/A            |
| 02/15/17 | (Wed.) | Provo                         | Steve Whitehead, NV7V     | (801) 465-3983 |
| 02/15/17 | (Wed.) | St. George <sup>2</sup>       | Gary O. Zabriskie, N7ARE  | N/A            |
| 03/01/17 | (Wed.) | Clearfield                    | Mike Youngs, KK7VZ        | (801) 573-3922 |
| 03/04/17 | (Sat.) | Logan                         | Richard D. Elwood, KE7GYD | (435) 753-4360 |
| 03/15/17 | (Wed.) | Provo                         | Steve Whitehead, NV7V     | (801) 465-3983 |
| 03/15/17 | (Wed.) | St. George <sup>2</sup>       | Gary O. Zabriskie, N7ARE  | N/A            |
| 03/28/17 | (Tue.) | Salt Lake City <sup>3</sup>   | Garth Wiscombe, W7PS      | (801) 558-5936 |

<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>Location is the Senior Center at the Columbus Center, 2530 S. 500 East

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

More details at <http://user.xmission.com/~uarc/testinfo.html>.

## **Dayton Hamvention May 19-21**

This year will mark the first time that the Dayton Hamvention, the largest amateur radio convention in the world, will *not* be held in Dayton! After many years at the Hara Arena in Dayton, Ohio, the old venue became unavailable.. This year's event will be at the Greene County Fairgrounds and Expo Center, about 15-20 miles southeast of Dayton near Xenia. The event is now increasingly referred to as simply "Hamvention ©."

The latest evidence that preparations are fully underway involves consulting professionals to make sure traffic flow is not a problem. Mike Kalter, W8CI, treasurer of the Dayton Amateur Radio Association which sponsors the event, reported that there will be staging areas for those needing to load or unload equipment for the indoor exhibit areas for the flea market.

Typical attendance at the event can exceed 25,000 hams. Full details of the Hamvention can be found at <http://www.hamvention.org/>.

## **Member of the Month**

### **Dan Gibb, N7GIB**

**By Linda Reeder, N7HVF**

This month we are featuring Dan Gibb, N7GIB. Dan became interested in radio communications by way of CB radio and got discouraged real fast. He couldn't believe the filthy language he was hearing and that the operators didn't treat people very nicely. Dan's friend told him he should get into amateur radio. An LDS stake center in the Millcreek area was offering a class in amateur radio, so Dan took the class and received his Technician license in 1992 when he was attending ninth grade at Wasatch Junior High School. His first call sign was KC7CBZ. After studying on his own, on September 3, 2016, Dan obtained his General class license. At that point he decided to change his call sign to a vanity call that has the letters in his last name in it. He is now N7GIB. Dan is now planning on upgrading to Extra. He will be attending the Extra class taught by Ron Speirs, K7RLS, and Morris Farmer, AD7SR, starting Wednesday, January 18.

Back in 1992 when Dan received his Technician license, his dad took him to West Jordan and

helped him get a handheld radio. It was a Radio Shack Realistic HTX-202. Dan's dad passed away shortly after that. One month ago that radio died. That handheld ran five Watts on high power. Dan has since bought a Chinese radio, a TYT F.M. transceiver. It runs five Watts on low power and 10 Watts on high. It is a dual bander covering two meters and 70 centimeters. He really likes it.

Dan really likes to get on the Western Reflector. His favorite net is the Alaska morning net which is held every morning at 8 A.M. and carried on the WA7GIE 449.425 repeater. Dan also enjoys the World-Wide Friendship Net. In addition, he loves to get on the 146.76 repeater and talk with the 76ers. He attends the "lunch bunch" on Fridays. It is fun having lunch with the 76ers.

Dan is a member of UARC and enjoys attending the meetings. Last summer Dan attended the Great Salt Lake Hamfest. Dan also participates in the Emergency Response Communications Net every Tuesday night at 9 P.M.

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Another hobby that Dan enjoys is studying the different currencies in other countries, including their serial numbers, their colors, and what is written on the bills.

Dan has two brothers and one sister. After Dan's father passed away his mother remarried several years later, so now he has a stepbrother and a stepsister. Dan's stepfather, Dan Nielson, is active in amateur radio. His call sign is K7PFF and he has his General class license. Dan's stepfather is also active on an Emergency Response Communications net.

Dan has Cerebral Palsy. He walked with crutches until he was in the sixth grade but then didn't need them any more. Dan has come a long way.

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Dan we wish you the best in getting that Extra Class license.



Dan Gibb, N7GIB (Photo by K7RLS)