

The *Microvolt*

February, 2014



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 2014 Board

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Historian: Ron Speirs, K7RLS	801 904-3587
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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://user.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>

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For account information go to:
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The Microvolt

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February Meeting: Remote Control

Have you ever wondered, while enjoying time at your villa on the French Riviera, if there wasn't an easy way you could be operating your home station remotely? Or maybe you just wondered if you could operate your rig, hidden behind the furnace, from a more comfortable spot in the living room? Or while you are away on vacation? Well, it can be done, in fact it's a lot easier than it was in days past. Rigs with computer interfaces have had a big impact.

Remote control will be the topic of our program at the February UARC meeting to be held Thursday, February 13. Our guest speaker will be Darryl Hazelgren, K7UT, founder of the Utah DX Association. Darryl has many decades of experience in various facets of amateur radio and was first licensed in 1959. His past calls include KN7KPQ, K7KPQ, DJ0KQ, AF7O, VK9WX, and WA7S. He will be telling how to set up some different methods to effect remote control along with their costs, advantages and disadvantages.

The meeting will be on Thursday, February 13, at 7:30 P.M. in room 2250 (the "Robison" classroom) of the Warnock Engineering Building. (Room 2250 is just across the hall from 2230 where we have most recently been meeting.)

The front elevators in the Warnock Building have the second floor locked out in the evening. There are two possible solutions for the handicapped. The first is to get into the elevator and then send an able-bodied person to the second floor to call the elevator. The second method is to find your way to the elevator in the southwest corner of the building and use it to access the second floor.

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 winter and spring, 2014, meetings are scheduled in room 2230 or 2250. See the [map](#) for information on finding the building. The room number varies depending on availability.

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 February get-together will be at “Greek Souvlaki,” 404 E. 300 South, in Salt Lake City.

Latest News

Our Cover

Our cover this month shows John Lloyd, K7JL, as he presented the program at the UARC meeting in January. He told about various sources of radio frequency interference (RFI), along with how to identify and eliminate them. (Thanks to Ron, K7RLS, for the photo.)

VHF Society Swap-Meet Feb 22

The annual swap meet and business meeting of the Utah VHF Society will be held this year on Saturday, February 22, 2014, at 9 A.M. This is typically the largest swap-meet in the state each year.

The location is the Events Center in the Davis County Fair Park, in Farmington, the same site as in 2013. The address is 151 S. 1100 West in Farmington. The strategy to get there from the south is basically as follows:

1. Take the Farmington exit from I-15. This should put you on 200 West.
2. Turn left on State Street. Follow State Street over the freeways and through some turns until it becomes 100 North.
3. Turn left on 1100 West. The Fair Park will appear soon on your left.

Note the time: 9 A.M. This is an hour later than almost all previous runs of this event. The folks that have to drive up from the southern part of the state requested the change at last year’s swap meet and those present voted in favor of it.

Admission is free for VHF Society members. Admission for non-members is \$5.00. Other charges include \$5.00 for a single display table, and \$3.00 for the space for a table to be supplied by the seller.

The Utah VHF Society helps support VHF and UHF repeaters throughout the state. This particularly helps small communities whose repeaters are used by those passing through from throughout the state. For more information see the Society’s web site at <http://www.utahvhfs.org/>.

ICOM-America New Address

After 30 years in its Bellview, Washington, location, ICOM America is moving its warehouse and offices to a bigger building in Kirkland. All returns, warranty service, and parts orders should now go to:

12421 Willows Road NE
Kirkland, WA 98034

New Video from ARRL

A new video has been released titled “ARRL at 100 — A Century of Ham Radio.” The half-hour feature was the result of a time-line that Allen Pitts, W1AGP, put together, one that was 28 feet long. The new feature is available for club presentations and for use as a recruiting tool.

A link to the YouTube version can be found at <http://www.arrl.org/centennial> . It can be purchased on DVD, and high-resolution files are available to those who might be able to arrange a television appearance.

UARC Annual Financial Statement – 2013

1/1/2013 – 12/31/2013

Category Description	1/1/2013- 12/31/2013	Overall Total
Income		
ARRL Dues	1,008.00	1,008.00
Book Sales	4,395.83	4,395.83
Donation	89.60	89.60
Dues	4,862.00	4,862.00
Int Income	245.07	245.07
Steak-Fry Income	430.00	430.00
T-Shirts	707.00	707.00
Total Income	11,737.50	11,737.50
Expenses		
ARRL Memberships	814.00	814.00
Books	2,824.57	2,824.57
Capital Expense	120.00	120.00
Field Day	1,190.61	1190.61
Insurance	200.00	200.00
Meeting Expense	276.88	276.88
Merchandise	693.93	693.93
Microvolt	2,854.14	2,854.14
PayPal Fees	88.97	88.97
Repeater	541.73	541.73
Sales Tax	281.81	281.81
Square Inc Fees	18.04	18.04
Steak Fry	938.01	938.01
Total Expenses	10,842.69	10,842.69
Overall Total	894.81	894.81

-Submitted by Treasurer Chuck Johnson, WA7JOS

License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone
02/15/14	(Sat.)	West Valley City	Donald R. Sanchez, KF7GYC	(801) 819-5472
02/19/14	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
02/19/14	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	(435) 674-2678
02/22/14	(Sat.)	Hurricane ²	Gary O. Zabriskie, N7ARE	(435) 674-2678
02/25/14	(Tue.)	Salt Lake City ³	Eugene McWherter, N7OVT	(801) 541-1871
03/01/14	(Sat.)	Logan	V.P. Rasmussen, N7JFG	(435) 770-0630
03/05/14	(Wed.)	Clearfield	Mike Youngs, KK7VZ	(801) 573-3922
03/15/14	(Sat.)	Farmington	Gary L. Davis, KE7MQF	(801) 298-3127
03/19/14	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	(435) 674-2678
03/19/14	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
03/25/14	(Tue.)	Salt Lake City ³	Eugene McWherter, N7OVT	(801) 541-1871
04/05/14	(Sat.)	Salt Lake City ^{1,4}	Gordon Smith, K7HFV	(801) 582-2438

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

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

³New location: Senior Center at the Columbus Center, 2530 S. 500 East

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

Check <http://user.xmission.com/~uarc/testinfo.html> for further exam information.

Ham Video to be on ISS

(from *The ARRL Letter*)

NASA Astronaut Mike Hopkins, KF5LJG, is slated to install the Amateur Radio on the International Space Station “Ham Video” digital Amateur Radio TV (DATV) transmitter in early February. The unit, already aboard the ISS and stowed in the Columbus module, will be commissioned in stages during February and early March. [ARRL-Europe](#) Chairman Gaston Bertels, ON4WF, said Hopkins will also install the camera and support arm. The 2.4 GHz transmitter will be connected to the ARISS 41 antenna already installed on Columbus.

“The installation procedure comprises a check of the electrical connections,” Bertels explained. “The transmitter will be powered on and will transmit a signal on 2.422 GHz. This check will be very limited in time, just enough to verify that the

control LEDs are nominal. Then Ham Video will be powered off, ready for the first commissioning step.

The European Space Agency conducted commissioning simulations on January 23 and 24, in collaboration with ARISS — an update of simulations carried out last September. The ARISS-EU team will handle signal reception during commissioning.

Commissioning is scheduled in four steps to take place on February 8, 15, and 16, and on March 5. “These dates are still to be confirmed, and this depends on the signature of the Flight Rules relative to Ham Video,” Bertels said. Blank transmissions will start immediately at the conclusion of step 1 and will continue through

step 4. “This means that the Ham Video transmitter will operate continuously during 25 days,” Bertels added. The DATV downlink frequency will be 2.395 GHz, DVB-S standard (QPSK modulation). Radiated RF power will be approximately 10 W EIRP. In its ultimate configuration, Ham Video will operate with a Canon XF-305 camera.

Bertels said a “blank” DVB-S signal contains all the data of a normal DVB-S signal, as if the camera were connected. “Receiving a black image and silent sound may seem uninteresting but, from a technical perspective, the digital signal offers an important source of information,” he added. With the proper equipment Earth stations can measure the video and audio stream and decode the DVB tables.

ARISS-EU invites ground stations with S-band capability to provide acquisition of signal (AOS) and loss of signal (LOS) times in UTC, as well as maximum signal level during the pass. These can be determined without the need for any special DATV hardware and software, Bertels said. ARISS is preparing a Ham Video Internet Reporting Program for collecting reception data from volunteering ground stations. He said a “set-top box” or a television receiver with a satellite tuner can be used to receive Ham Video signals during a pass of the ISS.

“When scanning the 2.395 GHz frequency, the DVB stream can be decoded,” Bertels said. “When this is successful, the channel name ‘HAMTV’ will appear on the TV screen.”

Member of the Month

Kathlynn Knight, KG7GOZ

By Linda Reeder, N7HVF

This month we are featuring Kathlynn Knight, KG7GOZ. Kathlynn is a new amateur radio operator having obtained her Technician license in November, 2013. Kathlynn's husband, Mark, got her interested in the hobby. He received his first license, General class, in February, 2013. His call sign is KG7BBC. Kathlynn would listen to her husband, Mark, talk on the internet with people who were amateur radio operators. She would also attend UARC meetings with Mark. Kathlynn and Mark listen to the UARC information net every Sunday. She started listening to the UARC information net way before she got her license.

Kathlynn is really involved with emergency preparedness. She has volunteered with the Red Cross for many years. One of the things that really impressed Kathlynn about amateur radio is the fact that amateur radio operators can communicate with each other during an emergency when all

other equipment such as cell phones and land lines are shut down.

Kathlynn and Mark are members of the Emergency Response team. They are also involved in the Neighborhood Watch program, a program where they drive around and notify the police if they see anything suspicious. They do this once a month.

Kathlynn is studying for her General license so she can get on the low bands. She is fascinated with radio waves enabling long distance communications. She really enjoys Echolink. She enjoys talking to people from all different backgrounds all around the world. On Echolink you can conference all around the world. You can talk on repeaters or you can talk computer to computer. There is much one can do with amateur radio such as emergency communications,

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contesting, and rag chewing. Rag chewing is her favorite.

Kathlynn is from San Jose, California. She grew up in San Jose and moved to Salt Lake City to attend the University of Utah. She graduated with a Bachelor's degree in communications. She met Mark through a friend and they got married.

Kathlynn and Mark have a Sheltie dog named Anna. Kathlynn loves to hike in the Wasatch mountains in Big and Little Cottonwood canyons. She enjoys listening to music and enjoys singing some of the Beatles' songs. They sang Beatles' songs at the steak-fry when my friend Dennis brought his guitar.

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Kathlynn, we wish you the best in all of your endeavors. Good luck in obtaining your Extra Class license.



Kathlynn Knight, KG7GOZ