

# The *Microvolt*

December, 2016



## 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 2016 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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## 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

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### December Meeting: Annual Ham Quiz

It's the end of the year and time for Gary Wong's famous ham quiz. Gary, AB1IP, is preparing questions about everything from operating practices to the theory underlying solid-state electronics. It's a lot of fun to test your knowledge and add to it, and it's almost guaranteed that almost everyone will pick up some fascinating tidbits of information they had not known before.

This final meeting of 2016 will take place at 7:30 P.M. on Thursday, December 8, in room L102 of the of the Warnock Engineering Building. It will also feature election of 2017 officers of the club and a chance to make nominations beyond those already presented.

To reach the "L" three-digit numbered rooms, take the elevator in the southwest corner of the main floor down to level "L1." (Don't try to use the elevators near the east entrance. They 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 meeting during the University's fall semester of 2016 will be in room L102. See the map at <http://user.xmission.com/~uarc/meetmap.html> 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 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 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. It is held at "The Village Inn," 910 E. 400 South in Salt Lake City.

### Latest News

#### Our Cover

Results have come out from last June's Field Day, a contest emphasizing portable and mobile operation. It is the largest U.S. operating event in amateur radio..A listing of the scores from Utah stations begins on page 6. This year UARC's score was the highest in the state. Our cover this month is from our operation from a site near Payson Lakes. Our shorter tower is being raised from our trailer nicknamed "The Calf,." to distinguish it from the larger "COW" (Communications on Wheels). Thanks to our club Secretary, Dick Keddington, KD7TDZ, for the photo.

**Officers for 2017**

During the December meeting we will be electing officers to keep the club running through 2017. As required by the bylaws, the nominating committee presented a slate of nominees at the November meeting and the floor was opened for further nominations. None were offered. So, at present the nominations stand as follows:

- President: ..... Clint Turner, KA7OEI
- Executive Vice-President: ..... Lonnie Oaks, K7LO
- Vice-President: ..... Bruce Fereday, KF7OZK
- Secretary: ..... Dick Keddington, KD7TDZ
- Treasurer: ..... Chuck Johnson, WA7JOS
- Program Chairperson: ..... Chuck DeWitt, W7DTO
- Program Chairperson: ..... Morris Farmer, AD7SR
- Editor: ..... Gordon Smith, K7HFV
- Assistant Editor: ..... Rick Asper, AC7RA

At the December meeting nominations from the floor will be accepted again before actual voting takes place. The only rules for nomination are that the nominee must be a UARC member and must be willing to run.

**Want to Upgrade your HAM LICENSE?  
(OR GET YOUR FIRST LICENSE?)**

**COURSES START:**

<b>TECHNICIAN</b>	<b>JAN 16, 2017</b>
<b>GENERAL</b>	<b>JAN 17, 2017</b>
<b>EXTRA</b>	<b>JAN 18, 2017</b>

All courses will be taught in the “shack” of Morris Farmer AD7SR. The Technician and General courses run from 7-9 PM for about 8 weeks. The Extra course runs for approximately 16 weeks. A license exam is offered at the end of each course. Morris Farmer, AD7SR, and Bill Rouleau teach the Technician and General courses. Ron Speirs, K7RLS, and Morris Farmer, AD7SR, will teach the Extra course. No charge for the course except for the ARRL *License Manual* which will be available at the first couple of classes.

Contact Morris if interested at: [f.morris1@comcast.net](mailto:f.morris1@comcast.net).

## Do We Have Your Email?

Some time ago at a club meeting we asked for a show of hands and found a that a number of our members would be happy to look at *The Microvolt* on line rather than receiving a printed copy. We aren't quite ready, even yet, to start emailing those who are on the list. But if you would like to be ready for this eventual option, now is a good time to make sure that the Secretary has your correct email address. You can send email to him at <mailto:kd7tdz@arrl.net>.

## Amateur Radio Parity Act

(From ARRL Bulletin 42 , November 17, 2016)

ARRL once again is calling on its members to urge their US Senators to support the Amateur Radio Parity Act (H.R. 1301) when it comes up in the Senate during the "lame duck" session of Congress that adjourns in mid-December. The House of Representatives approved the bill in September, but if the Senate does not follow suit, the bill will die, and the entire process will have to be repeated. ARRL Hudson Division Director Mike Lisenco, N2YBB, who chairs the ARRL Board's Legislative Advocacy Committee and has been heavily involved in efforts to move H.R. 1301 forward, said today, "The clock is ticking."

"We begin the e-mail campaign once again, as the US Senate returns to work this week after a month-long hiatus," Lisenco said. "We were just beginning to build momentum in the Senate following the unanimous passage of the Parity Act in the House when Congress shut down for the 4 weeks prior to Election Day."

The task is simple: Go to our Rally Congress page, enter your ZIP code, fill in your name and address, press enter, and e-mails will go directly to your Senators. Members may do this, even if they have already contacted their US Senators for support.

Our Rally Congress page is at:

<https://arrl.rallycongress.net/> .

"We have to remind our legislators that we are still here and that we need the Amateur Radio Parity Act to become law," Lisenco stressed. "We must do this now as we have, at most, only 4 weeks left in the session to get the bill passed this year. Otherwise, we will have to begin the entire process in 2017 with a new 115<sup>th</sup> Congress."

There are no guarantees, Lisenco said, and we are subject to the political bickering that goes on daily between the parties, despite the fact that the bill is truly a bipartisan effort. "In order to have a chance at overcoming political obstacles that have little or nothing to do with the legislation, we need our voices to be heard," he said. "And we need that input today."

September's victory in the US House was the culmination of many years of effort on ARRL's part to gain legislation that would enable radio amateurs living in deed-restricted communities to erect efficient outdoor antennas that support Amateur Radio communication. The measure calls on the FCC to amend its Part 97 rules "to prohibit the application to amateur stations of certain private land-use restrictions, and for other purposes." While similar bills in past years gained some traction on Capitol Hill, it was not until the overwhelming grassroots support from the Amateur Radio community for H.R. 1301, and ARRL's relentless and strident efforts on Capitol Hill that this bill made it this far.

As the amended bill provides, "Community associations should fairly administer private land-use regulations in the interest of their communities, while nevertheless permitting the installation and maintenance of effective outdoor Amateur Radio antennas. There exist antenna designs and installations that can be consistent with the aesthetics and physical characteristics of land and structures in community associations while accommodating communications in the Amateur Radio services."

## Utah Field Day Results

During November, ARRL published the results of the annual Field Day Operating Event, held last June. Utah's entries in this "non-contest" included 20 from portable and mobile stations and seven from fixed stations including one emergency operating center (EOC). UARC was the top scorer with 5422 points, even though that was somewhat less than last year's 6954 (which was *not* the top score in that year).

Raw score, though, is probably not the best way to compare success in different entry classes. It is pretty likely that a station with three 100-watt stations will make more contacts than one using a single QRP transmitter on battery power, even though the operators may have been equally good. The best way we have discovered to compare stations in different entry classes is to calculate the percentile each station achieved within the list of other stations across the country in its same operating class. We have made that calculation in the table below. Using this scheme among the portable and

mobile entries, UARC comes in second (with a percentile of 89.0) to WR7Q, Bob Carter, whose single-transmitter, single-operator operation achieved a percentile of 92.3 in the 1B1 class.

The top fixed station did even better being at the very top of their class and showing a 96.3 percentile. This station was W7RCH operated by the Cottonwood Heights Amateur Radio Club at the Cottonwood Heights EOC. However their competition was a bit less stiff with only 27 stations in the whole country having entered the 1F category (one transmitter in an EOC).

Below is our percentile tabulation. We have included last year's value for those stations which also operated in 2015. Using UARC as an example of how to read the table, we were 36th place among 326 stations that entered the 3A class. This means that 290 3A stations had lower scores than UARC, so 290/326 gives 0.88957. Rounding to three significant figures we get a percentile of 89.0.

Mobile and Portable Stations (in order of percentile)

Call	Class	Score	QSOs	Place	Out of	Pctl	Pctl 2015	Club Name
WR7Q	1B1	1,774	423	8	104	92.3	–	
W7SP	3A	5,422	1,529	36	326	89.0	93.0	Utah Amateur Radio Club
K7DAV	3A	5,204	1,265	39	326	88.0	73.4	Davis County ARC
NN7ZZ	1A	2,730	625	21	132	84.1	–	UDXA Team North
K7JEO	1B1	1,258	454	17	104	83.7	80.8	
AK7AN	2B2	954	206	3	16	81.2	–	
K7UVA	3A	4,032	1,305	67	326	79.4	–	Utah Valley ARC
KK7L	1B2B	2,430	233	3	12	75.0	–	Utah DX Assn QRPers
AD7KG	1B2	1,504	364	9	30	70.0	–	
K7ZI	1B1	412	53	57	104	45.2	–	
W7SU	2A	1,472	310	214	378	43.4	37.1	Ogden Amateur Radio Club
W7DRC	2A	1,398	217	227	378	39.9	56.5	Dixie Amateur Radio Club
KI7EWG	3A	1,766	173	202	326	38.0	–	Draper Ham Radio Assn
W7IVM	5A	2,282	488	51	80	36.2	19.7	Bridgerland ARC
W7BAR	3A	1,676		210	326	35.6	24.5	Borderline ARC
KK7KR	5A	1,858	360	66	80	21.2	–	
K7BSK	1A	380	95	114	132	13.6	60.0	Skyline Amateur Radio Club
WI7P	1C	92	21	45	52	13.5	–	
W7S	2A	566	43	355	378	6.1	–	Sandy Amateur Radio Club
KI7BBQ	2AB	885	19	8	8	0.0	–	UHAM

**Fised Stations (in order of percentile)**

Call	Class	Score	QSOs	Place	Out of	Pctl	Pctl 2015
W7RCH	1F	2,448	399	1	27	96.3	–
KZ7ZUL	1D	202	38	203	469	56.7	74.3
K7NM	1E	576	211	134	302	55.6	–
K7RFW	1E	444	63	157	302	48.0	68.9
KØESX	1D	146	48	259	469	44.8	–
K7DLX	2D	348	149	12	17	29.4	–
K7DBN	1E	112	31	290	302	4.0	10.5

## **Member of the Month**

### **Kenneth Fackrell, NØUQ**

**By Linda Reeder, N7HVF**

This month we are featuring Kenneth Fackrell, NØUQ. It was Ken's close friend, Stuck Sorenson, who introduced Ken to amateur radio. In March, 1994, Ken and Chuck passed their Technician tests. Ken's first callsign was KC7EWW. Unfortunately Ken's friend, Chuck, passed away several months later. After Chuck passed away Ken lost interest in amateur radio. Ken sold his mobile radio, a Radio Shack HTX-212. Even after Ken lost interest in amateur radio, though, he never never let that Technician license lapse. He renewed it every ten years.

Recently, something sparked Ken's interest in amateur radio. In January of this year Ken bought a Baofeng radio and was having a hard time learning how to program it. He was able to get on the 146.76 repeater and talk about his plight. Noji Ratzlaff, KNØJI, came to the rescue. He came over to Ken's house and showed him how to program that radio. Noji also introduced Ken to his web site, noji.com. This web site has all kinds of information on amateur radio including a complete tutorial on how to program those radios.

Noji teaches ham radio classes and helped Ken get his General license. Ken received his General license in April of this year. Ken then changed his callsign to KA7KEN while studying for his General. Ken obtained his Extra Class license in

May of this year. Richard Bateman has an online site called "hamstudy.org." This helped Ken a lot when he was studying for the Extra.

Ken decided that he wanted a one-by-two call sign. There is a web site called "AE7Q's Amateur Radio Database Query Tools," and it only shows the one-by-twos and two-by-ones that are available. When Ken was awarded the NØUQ call sign, Noji let Ken know on facebook at 6 A.M. that he had been awarded this call sign, even before the FCC let Ken know. The NØUQ callsign became official on election day.

Ken really wants to get involved in amateur radio and learn all that he can about it. Ken is a member of UARC and enjoys attending the meetings. He is a member of the UVARC which stands for Utah Valley Amateur Radio Club with Noji as the President. Ken attended his first Field Day at Payson Lakes in June and had a wonderful time. In July, Ken attended The Great Salt Lake Hamfest. This was his first hamfest.

Ken enjoys talking with the 76ers on the 146.76 repeater. Ken loves to go to the 76er lunch bunch group. They meet every Friday and Ken goes as often as he can. They visit four different restaurants in the Riverton area. It is announced every Wednesday on the 76er Net which is held

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on the 146.76 repeater at 7 P.M. Ken has made lots of friends through amateur radio.

Ken worked in building construction for many years. He retired in 2008. Prior to his retirement, Ken worked for Culp Construction of Salt Lake City as project superintendent, a job he held for for 17 years. Ken and his wife, Joan, have three children: one daughter and two sons. They are all grown now.

In addition to ham radio, the hobbies Ken enjoys are hunting, fishing, and shooting fire arm ammunition and reloading. He also likes casting

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lead bullets for reloading. Ken, congratulations on getting your General and Extra class licenses.



Mark Hansen, KG7SBN (November Member-of-the-Month)