

# The *Microvolt*

September, 2012



## 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.

## UARC 2012 Board

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Field Day Chair: Brett Sutherland, N7KG	801 298-5399
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Repeater Engineer: Randy Finch, K7SL	801 556-7565
ATV Engineer: Clint Turner, KA7OEI	801 566-4497
Autopatch Engineer: Gordon Smith, K7HFV	801 582-2438

## Contents

September Meeting: Moonbounce .....	3
Latest News .....	4
"For ID" .....	5
License Examination Schedule .....	6
Field Day Results .....	6
Member of the Month .....	7

## 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>

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 55, Issue 8, September 2012

### September Meeting: Moonbounce

A mode that sparks the imagination of most hams is Earth-Moon-Earth (EME) or “Moonbounce.” One can communicate with a distant part of the world by sending VHF or UHF signals toward the moon and letting them reflect back toward earth. Between the quarter-million-mile distance to the moon and the fact that the moon is not all that good a radio reflector, EME used to be the exclusive domain of “super stations,” stations with antenna arrays so large they had to be rotated on railroad tracks.

Things have changed a lot since then and it is now possible for more modest stations to work moonbounce without needing a large acreage. New digital modes that can work with signals well below the noise level are part of the magic. Our September UARC meeting, to be held Thursday, September 13, at the [usual time and place](#), will feature guest speaker Randy Kohlwey, WI7P. Randy is a veteran of the new-style moonbounce and will us what it takes to set up for it and what kind of results you can expect.

Randy has provided us, below, with some interesting history of his moonbounce activity.

I had an interest in amateur radio as a teenager and bought copies of several ARRL *Handbooks* in the 60's. One the first ham magazines I purchased featured an article on moonbounce. I built several radios as a teen but was much older when I actually became a ham. I earned my Technician License in the 80's while working at Evans and Sutherland as a software engineer. I made my first amateur satellite contact in January of 1992 and got hooked on them. By 2002 I had confirmed 67 DXCC countries and was at the top of the ARRL VUCC Satellite award standings. With 825 grids confirmed I cut back my ham radio activities in 2004.

I made my first EME contact in November of 2005 with a single Yagi at my ham shack in Idaho where I hope to build a large EME setup someday. Late in 2006 I gave EME a try using two Yagi antennas on top of my Summit Park home. I was surprised how many stations I could work. I confirmed 107 grids, 23 states, and 32 countries before I moved in 2009.

Now that I am living near downtown Lehi, I am building a new EME station that can handle the urban environment. I plan to share my experience in addressing the problems that arise from having a small backyard with five neighbors close by. Tradeoffs in the stations antennas, rotors, tower, and modes have to be made because of RF exposure levels, wind loading, RF interference, and room for guy wires. I have hope that it can work because OK1TEH with a single 10-element yagi and 950 watts on top of his Prague apartment has confirmed 384 stations and 99 countries.

That's the September UARC meeting on Thursday, September 13, at 7:30 P.M.

UARC meetings are held on the second Thursday of each month at 7:30 P.M. The fall meetings will be in room 1230 (the "Duke" classroom) of the Warnock Engineering Building at the University of Utah. See [http://user.xmission.com/~uarc/ab1ip\\_meetmap.html](http://user.xmission.com/~uarc/ab1ip_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 September get-together will be at "The Sizzler," 371 E. 400 South in Salt Lake City.

## **Latest News**

### **Our Cover**

Our cover this month shows our most recent club activity, the July Steak-Fry, held on Saturday, July 14. The sprinkles of rain when people were first arriving seemed ominous, but some canopies and eventual clearing made it a successful event.

### **Bountiful Swap Meet**

The next swap meet coming up will be in Bountiful on Saturday, September 15. It is sponsored by the Davis County Amateur Radio Club (DCARC) and will take place at Bountiful Park, 100 W. 400 North, in Bountiful. (Take the 400 North exit from I-15.)

There is no cost to come and no cost for tables but the tables are first come first get. Those with name badges are asked to wear them to help get acquainted with one another.

It will be possible to enter a contest for a UV-5R dual-band H-T. See <http://www.dcarc.net> for more details.

### **General License Class**

If you or someone you know is interested in upgrading to your General class license, Morris Farmer, AD7SR, and Ron Speirs, K7RLS, will be teaching a course beginning Wednesday, September 19th. Classes will be held at Morris & Carol Farmer's home once a week for two hours starting at 7:15 PM and will run for about 6-8 weeks depending on the needs of the students. Although books will be available at the first class, you should try to purchase your book ahead of time.

If you are interested in taking the course, contact Morris at [ad7sr@comcast.net](mailto:ad7sr@comcast.net), or Ron at [k7rls@comcast.net](mailto:k7rls@comcast.net). Directions to Morris' house will be sent to everyone who registers.

## Homebrew Coming

It's almost here! October is the month, as in most years, when UARC holds its annual "Homebrew Night," a time when everyone can show off their home-built amateur equipment. If you've been working on a keyer, an amplifier, a QRP rig, or a serious QRO linear amplifier, be sure to get the finishing touches on it in time for that October meeting. Everyone interested will have time to display and explain their projects.

## Bob Heil in November (maybe)

We are hoping, once again, to have Bob Heil as a guest speak via Internet at our November meeting. Stay tuned.

## Correction

Our apologies to anyone who was confused by the erroneous subheading on July's "Member of the Month" article. We hope it was obvious from the text and the photo that the article was really describing Bruce Fereday, KF7OZK.

## "For ID"

By Mike Collett, K7DOU

I was listening to the .62 repeater tonight and I heard a phrase that I'm hearing more and more often, especially from some of the newer hams: "This is KE7XYZ, *For ID*."

There are good habits to be found, and not-so-good habits. Good habits form the foundation for good on-air operating practice. Not-so-good habits, on the other hand,... well you get my drift.

There is only one reason I can think of to give your call sign on the air, and that is to identify yourself. It's common courtesy, it's helpful to know who is talking, and, oh, by the way, it's an FCC requirement when you use the amateur spectrum.

Everyone knows that you have to give your call sign at certain times during the course of a conversation, and at least every ten minutes. I suspect that's where the superfluous phrase "For ID" came from — that particular operator is letting the world know that he or she knows that it's time to identify.

Well, friends and neighbors, it's unnecessary to explain to the world why you are giving your call sign.

Let's look to the pros in the broadcast world. They have very similar requirements... they have to identify at least every half hour. But have you ever heard: "This is KSL, Salt Lake City, *for ID*." Ever wonder why they don't say that? Do you suppose it's because there is only one reason under the sun (or annular eclipse) to give your call sign? It's to identify yourself.

That rumbling and agony you hear when the phrase "For ID" is used is the sound of the Silent Keys turning over in their graves, and the skin crawling on many of us still walking upright on the earth.

"Hey, I own a Chevy Blazer, *for Car*." "I live on 44<sup>th</sup> South, *for Street*." "I have an 8am class this morning, *for Education*." "I have to go to the store, *for Milk*." (OK, you can have one out of four.) But pleeeeeeze, when you identify yourself on the air, do it simply: "This is K7DOU (period.)"

## License Examination Schedule

**Opportunities to test for new or upgraded amateur licenses**

Date	Day	City	Contact Person	Phone
09/19/12	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
09/19/12	(Wed.)	St. George <sup>2</sup>	Gary O. Zabriskie, N7ARE	(435) 674-2678
09/22/12	(Sat.)	North Salt Lake	Gary L. Davis, KE7MQF	(801) 298-3127
09/25/12	(Tue.)	Salt Lake City	Eugene McWherter, N7OVT	(801) 541-1871
10/06/12	(Sat.)	Salt Lake City <sup>1,3</sup>	Gordon Smith, K7HFV	(801) 582-2438
10/11/12	(Thu.)	Logan	V.P. Rasmussen, N7JFG	(435) 770-0630
10/17/12	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
10/17/12	(Wed.)	St. George <sup>2</sup>	Gary O. Zabriskie, N7ARE	(435) 674-2678
10/30/12	(Tues.)	Salt Lake City	Eugene McWherter, N7OVT	(801) 541-1871
11/07/12	(Wed.)	Clearfield	Mike Youngs, KK7VZ	(801) 573-3922

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

## Field Day Results

UARC's 2012 Field Day was judged by most of the participants to be one of the best in recent years. We entered this year in the 3A (three simultaneous transmitters) class instead of 2A that we had chosen in several of the most recent years. We even managed to keep two of the three stations active for almost the full 24 hours. Our contact total was more than twice last year's and the total score was nearly twice as much. The number of single sideband contacts was more than triple the 2011 value, but that was no doubt due partly to having two SSB stations instead of just one.

In addition to a good total number of contacts, we had good participation for the setup and tear-down. Getting enough volunteers for tear-down, in particular, has been problematic in recent years.

There were a total of 21 Utah stations that submitted logs. ARRL expects to have the entries processed and the results on the web sometime in November.

Band	CW		SSB		Total	
	2012	2011	2012	2011	2012	2011
80	43	—	180	53	223	53
40	261	113	122	46	383	159
20	567	479	559	141	1126	620
15	335	41	216	37	551	78
6	—	—	40	—	40	—
GOTA	—	—	178	149	178	149
<b>Total</b>	1206	633	1295	426	2501	1059
<b>QSO Pts</b>	2412	1266	1295	426	3707	1692
Power Multiplier					X2	X2
Subtotal					7414	3384
Bonus Points					1210	1050
<b>Grand Total</b>					<b>8624</b>	<b>4434</b>



Brett, N7KG, conducts a tour of UARC's Field Day operation  
(Photo by Ron Speirs, K7RLS)

## **Member of the Month**

### **Anthony Best, K7TFT**

*(Photo by K7RLS on page 8)*

By Linda Reeder, N7HVF

This month we are featuring Anthony Best, K7TFT. Anthony has been interested in amateur radio since he was 10 years old, but he didn't obtain his amateur license until he was 27 years old. Anthony received his Technician license June 2, 2005. His previous call sign was KE7EAS.

Anthony said that when he took this first test he didn't think he would pass. He said he quickly glanced over the material before taking the test. Anthony has a background in electronics and computer software, so he passed the test with no problem. Anthony said he really didn't do too much with amateur radio because he was busy

being a computer engineer and working with computer software.

Anthony works for a company that builds safety devices for commercial vehicles, oil servers, and mining vehicles.

On September 17, 2010, Anthony received his General license and got the vanity call, K7TFT. This is when Anthony became more involved in amateur radio. He became a member of UARC and started attending UARC meetings. He is also a member of the ARRL.

He attended his first Field Day at Payson Lakes in June, 2011. This is how he got his girlfriend, Mary Alexander, KF7QVL, interested in amateur radio. She was very impressed with Field Day. Anthony really wanted to come again this year but, unfortunately, his car broke down one day before Field Day.

In May of this year Anthony obtained his Extra Class license.

When Anthony was 10 years old he started playing with walkie-talkies. He loved to take them apart and learn about what made them work.. When I asked Anthony what his favorite thing about amateur radio was he said learning about what makes those radios work. He keeps finding new information about these radios.

Anthony said he does more listening than talking. He also likes building radios. He is now working on building a software defined low band HF amateur rig.

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Anthony has a Yaesu FT-897 . He said he would like to work with the new digital code 2 which is an open version of D-Star electronics.

Anthony has his own web site at [www.k7tft.org](http://www.k7tft.org). It has digital modes and sounds of a waterfall digital display.

Anthony, I wish you the best with all of your projects.



Anthony, K7TFT, at his station  
(Thanks to Ron Speirs, K7RLS, for photo)