# The Microvolt

September, 2009





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#### **Prologue**

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 in room 1230

**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, 1933 Woodside Drive, Holladay, UT 84124-1632.

**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.

Publication: The Microvolt is the official publication of the club. Deadline for submissions to The Microvolt is the 24th of each month prior to publication. Submissions by email are preferred (uarc@xmission.com), but other means including diskettes and typewritten submissions can be mailed directly to: Gordon Smith, 632 University St., Salt Lake City, UT 84102-3213. All submissions are welcome but what is printed and how it is edited are the responsibility of the Editor and the UARC board. 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.

#### **UARC 2009 Board**

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Historian: Ron Speirs, K7RLS	801 968-4614
1 /	801 908-4014
Field Day Chair:	
Club Trustee: Brett Sutherland, N7KG	801 298-5399
Engineer: Randy Finch, K7SL	801 556-7565
ATV Engineer: Clint Turner, KA70EI	801 566-4497
Board Liaison &	
Autopatch Engineer: Gordon Smith, K7HFV	801 582-2438
Provo Autopatch Host &	
ATV Engineer: Dale Jarvis, WB7FID	801 224-3405

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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:

www.xmission.com/~uarc/announce.html

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## The Microvolt

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# September Meeting: Get on the Air (Note: *Second* Thursday)

The next UARC meeting will be Thursday, September 10. Note that this is the first meeting on our new schedule. Meetings will now be on the *second* Thursday of each month.

The September meeting will be a return of last September's "Get on the Air" event, giving newcomers a chance to see what operating on HF is like. The operating style on HF is quite different from that on VHF, and it can be discouraging to the new General class operator trying to understand what is going on and how to tune in a single-sideband station. We hope this meeting will give the newcomers (and would-be newcomers) a chance to break the ice. Program Chairperson Jed Petrovich, AD7KG, has arranged for multiple stations to be set up and multiple "coaches" available to help folks get acquainted with HF operating.

There will also be a "rig clinic." If you are having difficulty understanding or programming your radio, bring it along *and be sure to bring the instruction manual*. There will be folks there that can help you understand terms like "CTCSS," "PL," and "offset."

Those who already know what HF is like and how to use their transceivers are encouraged to come and help those who are just starting out.

Again, the meeting will take place on Thursday, September 10, 2009, at 7:30 P.M. Our meetings during the Fall semester will be in room 1230 of the Warnock Engineering Building on the University of Utah campus. Our traditional parking on the east side of the building is blocked off for construction, so recommended parking is near the southeast corner of the Merrill Engineering Building lot. Go south along the east side of Merrill, then go in the north door of Warnock.

Of course, the meeting will include the "standard" meeting features:

- Availability of ARRL books from Fred, the "book lady"
- An opportunity to join UARC or renew your membership
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- 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 "Greek Souvlaki," 404 E. 300 South, in Salt Lake City.

### **Latest News**

#### **Our Cover**

Our cover this month shows award-winning chef Elaine Jones, N7BDZ, watching over the steaks at UARC's July steak-fry.

Elaine became a celebrity two years ago when she won a recipe contest on the Food Network. Her winning recipe can be found at:

http://www.foodnetwork.com/recipes/ultimate-recipe-showdown/mediterranean-pasta-with-lamb-meatballs-recipe/index.html.

There was a bit of panic at the steak-fry as the zero-hour approached and the folks with steaks, corn, and potatoes were nowhere in sight. It turns out that John and Jed were unable to find a store with a large quantity of fresh corn for sale. After trying three big chain grocery stores to no avail, they finally settled for frozen corn-on-the cob and it worked out well.

## **Homebrew Night Coming**

The October UARC meeting will be homebrew night, the annual chance to show off home-built amateur equipment. There is still time to get your project finished!

Anything that can be used in amateur radio and has not been entered in a previous UARC homebrew night is eligible to be shown. That's Thursday, October 8.

## **More on Field Day**

Your editor has a pleasant problem this month: more material than we have room for. Many thanks to our contributors. A full Field Day report with pictures is one thing we had to put off until a future issue. Here are a couple of notes in the meantime:

Our claimed score with bonus points was 5014 compared to the 2008 score of 4570.

There were 23 entries from Utah this year: 14 portables, 8 home stations, and one emergency operating center.

Our Field Day Chairman was Andy Johnson, KE7UQO. In last month's issue we mistakenly attributed a different call to Andy.

Our Treasurer, Chuck Johnson, WA7JOS, has posted a number of Field Day photos in a Picasa album on the web. See:

http://picasaweb.google.com/wa7jos/FieldDay2009.

Check out also the photo and note on page 6.

### **Swap Meet September 19**

Remember last spring when we announced we would be joining two other clubs to sponsor a swap meet? Well, the time is here! The tri-club swap meet will be held at 8:00 A.M. sharp on the morning of Saturday, September 19. The event, sponsored jointly by the Davis County Amateur Radio Club, the Ogden Amateur Radio Club, and UARC, will take place at Bountiful Park, 100 West and 400 North, in Bountiful. Take the Bountiful 400 North exit from I-15.

Everyone is invited. There is no entry fee. Bring any amateur radio equipment or parts you would like to sell or swap.

## **Confessions of a Solderaholic**

By Andy Johnson, KE7UQO

Why do I like solder? Maybe it's just the lead fumes talking, but I am addicted to soldering.

Hi, my name is KE7UQO and I am a solderaholic. There. I said it. By the way... How did my name become a string of letters and numbers? Has the world been taken over by a consortium of super corporations bent on world domination by creating cyber-zombies out of the world's nerds? No wait... Its just the FCC. Just kidding... The FCC and ARRL protect us as hams, and we wouldn't have the fun in the hobby that we do without them.

Back to the article...

All right... We know I like to solder. But why? When I see a potential project I always ask myself if I can do it on my own. Broken bathroom sink? No problem. Drywall, paint, carpet? Well, everything except the carpet. 2-meter antenna? Kid's stuff. Let me tell you about something more involved...

It all started in June of 2008 when my church sponsored a Technician class and test session and I got my Technician ticket...

Actually, I think it happened as a boy when I got a hand-medown electronics project lab from Radio Shack...

Or maybe it was the time I ordered the "TV-B-Gone" universal remote kit despite much chagrin from the XYL... Well that was when I learned to solder, at least. At some point in my life, a spark was ignited and I became passionate about all things DIY.

Well, I've got to start this story or the reader is going to use this *Microvolt* as a coaster... So lets say it started about a month before Field Day. I had plans to make a power supply to use camping, for emergencies, and especially, for Field Day. I already had the enclosure... a military ammo box. I had received it from a friend at work who, unfortunately, was laid off. He left angry... And a few days later he emails me to tell me that there is an ammo box waiting by my car. No, I didn't call the bomb squad. But I did get it out of sight before someone else did!

Okay, so I have the enclosure. Total investment so far: nothing. Now I needed a battery. Lucky for me, there was a UPS left at the house when we bought it. Now at this point I need to emphasize that I am a tightwad. A *big* tightwad. Like, the biggest tightwad there ever lived. Alright. I let that out... now I feel much better. Okay, the battery! So I salvaged this

12V 7AH battery from the UPS and it only cost me the price of a new house! Now, the people that lived in the house before didn't take care of it so well, which I am guessing from all the empty tequila bottles and the huge holes in the walls. So, with that being said, I figured maybe they took care of the UPS, right? (Hey, I got the house a lot cheaper than if I'd a bought a house with no holes... tightwad, remember? BTW, the house is all fixed up and no longer is the neighborhood crack house.) Well, lets just surprise the reader and say that the UPS case was broken open for a reason. Now, before I tell you that the battery is dead, let me tell you about the installation:

So payday comes and I'm off to RA-ELCO for some serious scavenging! Holy cow! How do I love thee RA-ELCO... I could write a whole article about thee, but alas, we don't want to get off track again... oops... sorry. Alright, so I bought: some red and black automotive wire, a panel-mount cigarette lighter socket, some fuses, some RG-58 for an antenna, some BNC connectors, and a cigarette lighter surplus cell phone charger. Now the night before, I must say, I went to Harbor Freight, my other favorite discount store, and bought a large pack of shrink wrap, a garden hose, a sprinkler and a \$5 float charger. Now the reader must know, that if a battery is not charged fully, a float charger makes a great paperweight. Especially, if you cut off the alligator clip ends that come stock and solder on a cigarette lighter plug that you bought at RA-ELCO for \$3. (That also means you can't return it.) Long story shorter (but not much shorter), there's a float charger in my garage taking up space. At this point the author would like to thank those participants that answer his technical questions at the weekly round table net on the '62. Now, our total investment is somewhere around \$30. So after doing the research, and actually reading the label on the float charger, I decide that I need a smart charger. Now, I work for a company that sells surveying equipment, and as part of that, UHF radios for surveying. Now, as anybody who's gone to the field will know, you can't plug these into a currant bush. So, surveyors take batteries with them the same as hams, and those batteries need to be charged, so we sell smart chargers! I buy the smart charger, and bring it home... total investment: \$50.

Now, amid buying the float charger and buying the smart charger, I had put together the power supply: I bolted some angle bracket to the bottom with car panel pop rivets (easily removed), and wired the battery, with inline fuse (gotta be safe!) to the cigarette socket. It was my original intention to charge the unit in the cigarette socket with the float charger, with my MacGyver homebrew connector. We know that plan failed already. So now, I've got some serious issues, because I have to wire in the charger leads, which is ring connectors to

SAE, with SAE going to the charger. Now, being the tightwad that I am, I scrounge around the shop for some small bolts, nuts and washers, and wire it all up again with ring terminals, so now I have a nice tangled mess in the bottom of the enclosure. I put the unit on the smart charger overnight, though it should only have taken about 2 hours to charge the unit. The next morning I wake up like it's Christmas, and plug in my trusty HTX-202 with the cigarette lighter plug. Nada. Nil. Nine! Zippo... Zilch. Yup. The battery is dead, but I go into immediate denial and start checking connections, wiring, and fuses. Nada still. So I grab my multimeter, pull it out of the box and probe with leads. I hold the black common lead in one hand, wire attached, and the red positive lead in the other... no wire. I've busted my multimeter. No way to test the unit or the charger. I borrowed a multimeter later that night, and the

charger is working properly, but as soon as the charger is disconnected, 9.4 volts... 9.3 volts... counting down faster than I can throw money at this problem.

New battery: \$20 Total investment: \$70 Learning your lesson about homebrew: Priceless.

Now, once I get the battery installed, the next move is to add a voltmeter to the panel, not only making it look retro (analog meter) but giving valuable information about the battery. Now if only they made a meter to track how much time and money is wasted...I mean *invested* in each project... that would be a good sell, something that even a tightwad like me would buy.

73 and happy homebrewing.

## The Pushpin



Back at UARC's Field Day meeting in June, President John Hardy, K7ALA, projected a Google map showing how to get to the site. The destination was marked by the customary Google image of a pushpin. Someone asked "How do we know when we're there?" Rex Estes, K7XTC, piped up:

"Just look for the giant pushpin."

When the real event came, Arlene Johnson, KD7IZC, had actually made a giant pushpin! We hope it helped. Thanks to Rick Asper, AC7RA, for the photo.

# Member of the Month: Marvin Match, KA7TPH

By Linda Reeder, N7HVF

This month we are featuring Marvin Match, KA7TPH. [See photo on page 8.] Marvin has been in amateur radio for 25 years. When he was a little boy his aunt was dating a ham radio operator. One day the ham radio operator let Marvin come over to his house and see his ham shack. Marvin even got to make some contacts on the ham's equipment. Marvin loved it. Marvin knew this was the hobby for him, but it wasn't until many years later that Marvin received his ham license. In 1983 Marvin Received his Technician license. Finally in the spring of this year Marvin obtained his General and then his Extra Class license.

When Marvin first got into amateur radio he was a student at the University of Utah. He was very active in the radio club at the university. In fact Marvin was the one who got the club station up and running. Then when he became an employee at the university they put him in charge of the club station..

Unfortunately when the university did their remodeling they kicked them out of the room where the station was and took down the antenna. Now they won't let anyone go up on the roof to put up an antenna. I think that is sad because not only would the club station be an excellent tool for teaching students about amateur radio, it would be an asset if and when an emergency should arise. Marvin works at the University of Utah as a student teacher adviser in labs for the Electrical and Computer Engineering Department.

Six years ago when Mark Richardson, W7HPW, was president of UARC we could no longer meet in the building where we use to have our club meetings because the business was closing. UARC worked hard trying to find a place that wouldn't cost and would be sufficient for our club

needs. It was Marvin Match, KA7TPH, who provided a place for UARC to meet at the University in the room we now use. Marvin said this was the least he could do to keep amateur radio at the University since they won't let them have a club station there any more. Marvin has to sign a form every year so we can continue to meet there

Marvin and his Wife Susan have one daughter Kira who is 23 years old. Marvin is interested in sports cars and hotrods. He even has a machine shop in his home. Marvin enjoys traveling to different hamfests. He has been to California, New Mexico and Washington.

One of the things that Marvin likes about amateur radio is the people he meets when talking on the radio. Marvin is a member of UARC and he tells the people he talks to on the radio what a wonderful club UARC is. He says our monthly meetings are great and he really likes the steakfry. Marvin says he is really amazed that many people throughout the different states really don't have much of a ham radio club. They say "Well, we just can't get anyone interested in doing anything to get the club going."

Marvin really enjoys teaching amateur radio. He would like to start having a ham class every quarter. There were 32 people in the class he taught the last quarter. He will be starting a class in September. If you know anyone who would be interested in taking a Technician class you can contact Marvin at 801-581-8765 or email mailto:match@ece.utah.edu..

Marvin, thanks for the contributions you have made for UARC. We wish you all the best in teaching your ham classes.



Marvin Match, KA7TPH (Photo by Ron Speirs, K7RLS)

# **Examination Schedule**

09/16/09	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
09/16/09	(Wed.)	St. George	Gary Zabriskie, N7ARE	(435) 674-2678
09/23/09	(Wed.)	Salt Lake City	Edward J. Sim, N7RTA	$(801) 594-2218^1$
09/29/09	(Tue.)	Salt Lake City	Eugene McWherter, N7OVT	$(801) 541-1871^{1}$
10/01/09	(Thu.)	Logan	V. P. Rasmussen, N7JFG	$(435) 770-0630^1$
10/03/09	(Sat.)	Salt Lake City	Gordon Smith, K7HFV	$(801) 582-2438^{1}$
10/07/09	(Wed.)	Ogden	Mary Hazard, W7UE	(801) 430-0306
10/21/09	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
10/21/09	(Wed.)	St. George	Gary Zabriskie, N7ARE	(435) 674-2678

<sup>&</sup>lt;sup>1</sup> Preregistration required. Contact the indicated person.