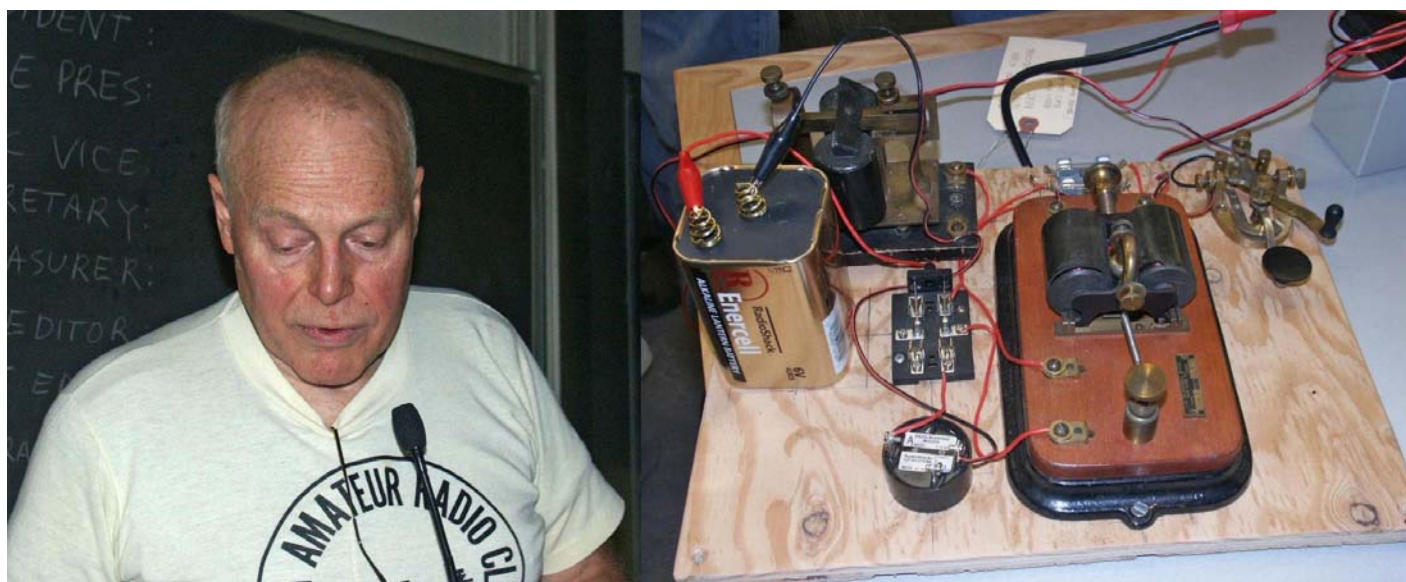


The *Microvolt*

November, 2008



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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 first Thursday of the month at 7:30 PM in the University of Utah's Warnock Engineering Building in room 1230, The "Duke Classroom."

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. ARRL membership renewals should specify ARRL Club #1602.

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-) has autopatch facilities for Provo which are currently disabled due to abuse and for Salt Lake which is in need of reworking to be compatible with IRLP.

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 10th 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: Tony Naef, 4585 Sunstone Rd. #327, Taylorsville, UT 84123. 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 2008 Board

President: John Brewer, N7MFQ	(435) 837-5646
Executive VP: Andrew Madsen, AC7CF	466-0744
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"Book Lady": Fred Desmet, KI7KM	485-9245
Historian: Ron Speirs, K7RLS	968-4614
Field Day Chair:	
Club Trustee: Brett Sutherland, N7KG	298-5399
Engineer: Randy Finch, K7SL	556-7565
ATV Engineer: Clint Turner, KA7OEI	566-4497
Board Liaison &	
Autopatch Engineer: Gordon Smith, K7HFV	582-2438
Provo Autopatch Host &	
ATV Engineer: Dale Jarvis, WB7FID	224-3405

Contents

<i>Prologue</i>	2
<i>UARC 2008 Board</i>	2
December Meeting.....	3
Latest News.....	4
Utah 2008 Field Day Scores	5
Member of the Month: Ray Larsen	7
License Examination Schedule	8

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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For account information go to:
<http://www.xmission.com/>
Or call 801 539-0852



The Microvolt

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December Meeting

The December UARC meeting will be held on Thursday, December 4, and will feature election of officers for 2009 as well as a program to be announced.

At the November meeting, as prescribed by our bylaws, a slate of candidates for 2009 offices was presented by the nominating committee. No additional nominations were offered from the floor. So, at present, the list of nominees is as follows:

President:	John Hardy, K7ALA
Executive Vice-President:	Andrew Madsen, AC7CF
Vice-President:	Brett Sutherland, N7KG
Secretary:	Dick Keddington, KD7TDZ
Treasurer:	Chuck Johnson, WA7JOS
Program Chairperson:	Bryan Mogensen, W7CBM
Program Chairperson:	Jed Petrovich, AD7KG
<i>Microvolt</i> Editor:	Gordon Smith, K7HFV
Assistant Editor:	Rick Asper, AC7RA

At the December meeting nominations will again be opened to the floor before the vote.

Again, the meeting is Thursday, December 4, at 7:30 P.M. This year our meetings are in the new Warnock Engineering Building in room 1230, The "Duke Classroom." See <http://www.xmission.com/~uarc/meetmap.html> for a map and more detailed instructions.

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

Latest News

Our Cover

Our cover photo this month comes from the November 6 UARC meeting. Dick Leining, W7DML, told us about his wire telegraph experience in the Mountain Spirit Heritage Festival last summer. Dick is pictured next to one of the telegraph stations including sounder, key, and relay. It also includes a slightly later vintage buzzer from Radio Shack that allows copying by those who have not mastered sounder clicks.

After the presentation, trying one’s fist on a sounder was a popular activity. (Photos thanks to Ron Speirs, K7RLS.)

More on “Antennas” and “Digital Modes”

There have been a number of requests for the PowerPoint files from the March meeting (Jed Petrovich, AD7KG, “Antennas”) and the May meeting (Doug Gallup, AD7BN, “Digital Modes”). These presentations are now available on the UARC web site with permission of Doug and yours truly. Both files are fairly large (4.5 and 11 megabytes respectively) since they have sound files embedded in the PowerPoint files. [See the “How-To Archive” page at <http://www.xmission.com/~uarc/howto.html>.]

Briefly, the Antenna presentation covered some basics of UHF/VHF and HF antennas. It was largely based on my personal experience over the last several years. As I mentioned during the presentation, I like to build things. Some projects worked well while other projects didn't turn out as expected. The “Sound Check” slide contains three

sound files that we couldn't hear on the night of the presentation. The first two are made using two hexbeam antennas. One antenna is pointing towards the signal source and the second is pointing in the opposite direction. The operator switches between the two antennas about every 3.5 seconds. The third file compares a hexbeam with a doublet antenna.

Doug gave an excellent presentation on HF Digital Modes. Of particular note are the blue arrows in the lower right-hand corner of some slides. Click on the arrow to hear a sample of the digital signal. Obviously, there is no dialog included with these files. However, some of the information may still be beneficial. I can't speak for Doug, but if you have any questions about the Antenna presentation, please feel free to contact me.

– Jed W. Petrovich, AD7KG

Wasatch-100 Changes Schedule

We have recently learned from John Moellmer, WB7SUB, that there will be a significant change in scheduling of the Wasatch 100-mile Endurance Run next year. The 2009 event will happen on Friday and Saturday rather than the traditional Saturday and Sunday. It is believed this will help the runners who need Sunday for a travel day or a recuperation day. The impact on volunteers is not yet known.

The annual Wasatch-100 is possibly the most ambitious public service event for which Utah amateurs provide communications. It runs for a continuous 36 hours and involves amateurs at 15

aid stations plus the finish line. The event is held each year on the weekend after Labor Day.

Most amateur stations at the checkpoints are equipped both for voice and packet radio. The packet radio system is used to enter the in-time and out-time of every runner at every aid station into a database at the finish line.

Examination Fees to Increase

The American Radio Relay League (ARRL) has announced that the fee for ARRL-coordinated

license testing will rise from \$14 to \$15 in 2009. This is the first increase in four years. Increased costs were cited as the reason for the increase.

It is not known what other Volunteer Examiner Coordinators (VECs) will charge, but it has been common for others to follow ARRL's lead. There are currently 14 VECs in the United States although approximately 80% of examination sessions are coordinated by just two: ARRL and W5YI.

Utah 2008 Field Day Scores

ARRL has published the scores for the 2008 Field Day contest held last June. ARRL members can access the data at www.arrl.org/contests/results/. It can be a challenge to compare scores of different stations operating in different classes with different numbers of transmitters. We believe one measure that is helpful is each group's percentile within their entry class – how they placed nationally among the stations running the same number of transmitters and the same type of entry (portable, home, etc.).

This year the Utah DX Association was a clear winner in both percentile and raw score, coming in third in the country out of 303 stations that entered the 3A class. Unusual this year is that fully half the Utah entries were either home stations or those at emergency operating centers. This confirmed our sense at the time that there were far more Class D and E (home) stations than we had heard in previous years. This seems odd for a contest that emphasizes portable operation. Was it a result of high gasoline prices at the time?

Below is a summary of the Utah stations that entered (and remembered to send in their results). Entries are shown in order of percentile within their entry class. (Percentile is the percentage of

those entering in a class who got lower scores than the entry being rated.)

Entry classes generally are a numeral followed by a letter. The number is the number of transmitters in simultaneous operation. The letter indicates the station's status regarding portable vs. fixed operation and whether emergency power was used as follows:

- A: Club or group portable
- B: Portable station with one or two operators
- C: Mobile Station
- D: Home station on commercial power
- E: Home station on emergency power
- F: Station at an emergency operation center (EOC)

Class 1B1B indicates a portable station with a single transmitter and a single operator using battery power and running five watts or less through the entire contest.

For complete information on classification and scoring see:

<http://www.arrl.org/contests/rules/2008/fd.html>.

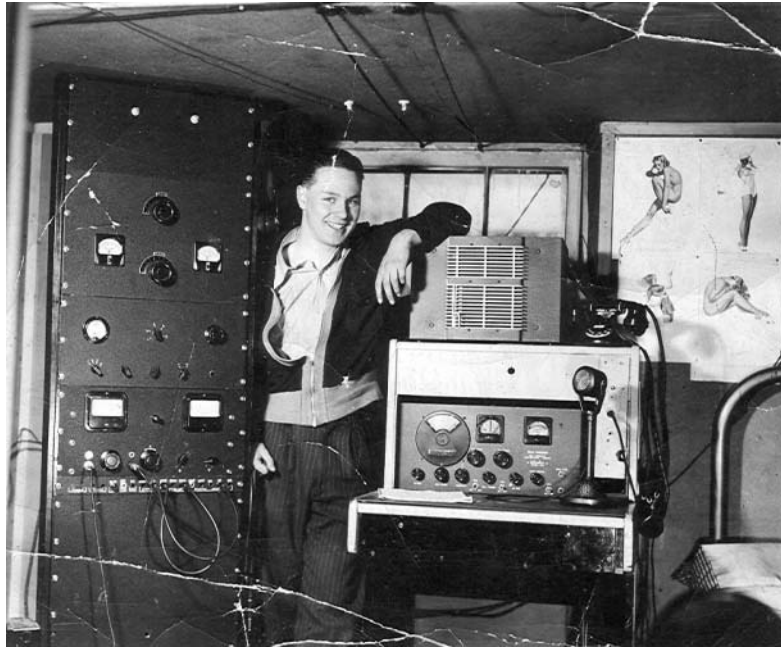
2008 Utah Field Day Scores

Call	Class	Score	QSOs	Position	of	Per-centile	2007 Per-centile	Club
Portable Stations								
K7UM	3A	12,638	3,893	3	303	99.0	98.9	Utah DX Assn
K7DAV	3A	6,096	1,632	24	303	92.1	84.8	Davis County ARC
W7SP	2A	4,572	1,033	80	442	81.9	83.4	Utah ARC
N7XJ	1B1B	1,970	162	22	99	77.8	—	(Bob Armstrong)
W7DRC	3A	2,608	758	131	303	56.8	57.3	Dixie ARC
W7SU	2A	1,456	601	302	442	31.7	20.2	Ogden ARC
W7IVM	4A	1,664	473	86	109	21.1	36.7	Bridgerland ARC
W7UAR	2A	1,158	257	355	442	19.7	—	Hobble Creek Stake
W7BAR	2A	212	71	440	442	0.45	—	Borderline ARC
Home and Fixed Stations								
WA7LNW	2D	3,404	1,098	3	15	80.0	—	
N7HZB	1D	396	8	107	374	71.4	—	
K7NAL	1E	1,060	405	65	202	67.8	—	
AC7JW	1D	328	76	127	374	66.0	—	
W7DML	1D	272	47	150	374	59.9	59.7	
K7UB	1F	2,024	446	18	43	58.1	45.2	Golden Spike ARC
K7DAC	1D	248	99	164	374	56.1	—	
KD7SWL	1D	204	57	192	374	48.7	—	
KC7PVD	1E	126	13	197	202	2.5	—	



Member of the Month: Ray Larsen, W7NMK

By Linda Reeder, N7HVF



A young Ray Larsen shows off his homebrew transmitter.

This month we are featuring the original author of *The Microvolt*: Ray Larsen, W7NMK. The beginnings of *The Microvolt* were in early 1947. Ray was the President of UARC when he put together UARC's first newsletter and named it *The Microvolt*. It was only one page. Back then there were only 25 members of the club. *The Microvolt* was produced using a Hectograph duplicator and given to the members at the meetings. Later on, one of the club members had access to the mimeograph and that allowed them to mail *The Microvolt* to the members of the club.

The Microvolt has come a long way. It is now eight pages. There was a time when it was 16 pages, but to save money we shortened it. *The Microvolt* is 61 years old! How about that!

A few years before *The Microvolt* was published UARC was involved in working with Civil

Defense. Hal Morgan, W7JPN, one of the members of UARC, was the superintendent of Salt Lake City Police radios. UARC helped build many of their radios.

Ray sent UARC's historian, Ron Speirs, K7RLS, some newspaper articles with pictures of the club working with the Civil Defense, but the newspapers never mentioned UARC.

Ray was President of UARC for two terms. Then he was Vice President and one of the chairpersons. Ray is also a member of the Quarter Century Wireless Association (QCWA).

Ray has been in amateur radio for 74 years. Ray received his first license in May 1936 when he was 15 going on 16. The licensing structure back then was really different with license classes called A, B, and C. Ray received the C license.

License A was the top license. In order to obtain a license one would have to pass a theory and 15 word-per-minute code test. License B just meant that an individual did not live close to an FCC office, so the individual took their test from a Class A operator.

Ray now has his Advanced license. Ray's first call sign was W6NMK. Before World War II, the most western states had W6 call signs. This included Wyoming, Montana, Idaho, Arizona, Utah, California, and Washington state. After the war the 6 calls were given to the State of California and the other states were put in the seventh call area.

When I asked Ray what his favorite thing about amateur radio was he said he just loved the thrill of communicating all over the world using the Morse Code. When Ray first got into the hobby Morse code was the only way you could communicate. Talking by voice just didn't exist then. Ray also loves to build transmitters and power supplies. The first transmitter Ray built was a 24A tube radio eight inches square and six feet high. It had a relay rack. The power supply he built was five watts. The power supply was on

one board and the transmitter on another board. The picture of the transmitter that Ray sent to Ron Speirs, K7RLS, was built when Ray was 19 years old.

Ray would have loved to participate in homebrew night, but, unfortunately, Ray and his wife, Miriam, were on vacation during that time.

Ray married his first wife, Artella, in 1947. They had three children: two girls and one boy. Artella died of cancer in 1986. Ray remarried in 1997 and his second wife's name is Miriam.

Ray served three years in the Navy as a radio technician. After he got out of the Navy he worked for a radio parts store that sold electronic supplies. After World War II the store was called Standard Supply. Ray worked there from 1946 until 1986.

Ray, we would like to thank you for your contributions to amateur radio and UARC especially *The Microvolt*.

License Examination Schedule

Date	Location	Contact Person	Phone
11/19/08 (Wed.)	Provo	Steve Whitehead, NV7V	465-3983
11/19/08 (Wed.)	St. George	Gary O. Zabriskie, N7ARE	(435) 674-2678
11/20/08 (Wed.)	Roosevelt	R. Chandler Fisher, W7BYU	(435) 722-5440
11/19/08 (Wed.)	Provo	Steve Whitehead, NV7V	465-3983
11/19/08 (Wed.)	St. George	Gary O. Zabriskie, N7ARE	(435) 674-2678
11/25/08 (Tue.)	Salt Lake C.	Eugene McWherter, N7OVT	541-1871 ¹
12/06/08 (Sat.)	Salt Lake C.	Gordon Smith, K7HFV	582-2438 ¹
12/13/08 (Sat.)	Logan	Roberta M. Lofthouse, KJ7LQ	(435) 245-6632
12/17/08 (Wed.)	Provo	Steve Whitehead, NV7V	465-3983

Footnote 1: Preregistration is required. Check with the contact person prior to the exam.