



Alvino Rey entertains after dinner at the UARC Steak Fry in July (Photo by Ron, K7RLS)

# The Microvolt

September 2003

Please Send Dues to:

UARC

c/o Gregg Smith

7546 S. Uranium Drive

West Jordan, UT 84084-3942

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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 Engineering and Mines Classroom (EMCB) building, Room 101.

**Membership:** Club membership is open to anyone interested in amateur radio; a current license is not required. Dues are \$15 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 \$15 may obtain a membership without a Microvolt subscription for \$9. Send dues to the Club Secretary: Gregg Smith, K7APW, 7546 S. Uranium Dr., West Jordan, UT 84084-3942. 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 on both the Orem exchange (covering Santequin to Lehi) and the Salt Lake City exchange (covering Draper to Layton). The 449.10 repeater has autopatch facilities into Salt Lake City only available to UARC members. Due to the volume of traffic, only mobiles should use this autopatch. Autopatch use is open to all visitors to our area and to all club members. Non-members who wish to use the autopatch are encouraged to help with the cost of maintaining the equipment by joining the club.

**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: Tom Schaefer, 11678 Littler Rd., Sandy, UT 84092. 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: Gregg Smith, 7546 S. Uranium Dr., West Jordan, UT, 84084-3942.

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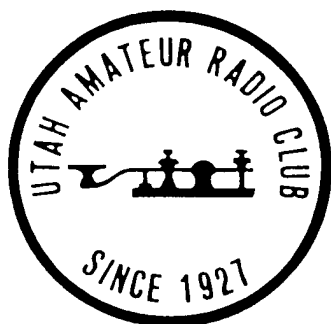
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For late breaking news listen to the UARC Information Net Sundays at 21:00 on 146.62 or set your browser to:

[www.xmission.com/~uarc/announce.html](http://www.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.





## QST from the Prez

**Brett Sutherland N7KG**

**F**irst, let me say how much I enjoy UARC. It's a lot of fun to get to know everyone. I hope to get to know all of you better in the future!

As is usual for my article, I am going to ramble. This time it will be about 2m issues. So let's get started. **Say hi to every new ham.** You'll know by their call sign that they are new. Make them feel welcome.

**Listen first.** Man was born with 2 ears and one mouth, and they should be used in that proportion. Listen to see if a frequency is in use. Many times someone is standing by and your call might land right in the middle of a QSO. Listen to see whom the other stations are. Memorize their call signs and names. If you put out a call, listen for the reply. Listen to the inputs and figure out what 2 meter propagation is like in your area. Listen to the quality of the signals received. Learn the difference between signal strength and audio quality. Listen to an experienced hams' diagnosis of problems. You thus learn to help others with issues like 60 cycle hum, alternator whine, inadvertently set PL's, or as was the case with my new radio, a WIRES™ button accidentally enabled. I had to reset the radio to get rid of it until I could call the manufacturer. I've learned a few things by trial and error, but mostly I've learned from listening to others.

# The Microvolt

The Official Publication of the Utah Amateur Radio Club, Salt Lake City, Utah  
Volume 47, Issue 7, September 2003

Recently I've heard folks breaking to report accidents. When breaking for an emergency, it is important to make sure that someone is ready to copy. It doesn't do any good to report all of the details when no one has a pen and paper at the ready. Also, while there is no problem with breaking, it should be reserved for:

1. Emergencies.
2. Making a short call to someone expecting your call and then moving off frequency.
3. Joining a conversation where you have something pertinent to add. This goes back to listening. Listen to who's in the roundtable and what they are talking about.
4. To pass traffic to one of the parties where your time is constrained and you really can't wait for a conversation that may not end.

**In no case should a break be used to call someone that isn't even in the roundtable just to say hello, thus interrupting an ongoing conversation.**

There are a number of ways to initiate a conversation on air. One can simply throw out their call and add something to their call, like "monitoring" or "listening". While everyone knows what the caller means, I am partial to a different calling method. I prefer to use a single CQ. For instance, "CQ from N7KG." I site for my reason that CQ is concise and direct. There is no ambiguity about the intent of the call. Some folks "monitor" when really they are just trying to tell their family that they are now on air. I've responded to folks calling "monitoring" before only to have them tell me they were trying to get a hold of someone else. CQ isn't vague. CQ says "I am wanting to talk to someone, anyone." Also, I might add that CQ is used on every other band, for every other mode. I personally don't see why 2m FM should be an exception. Before you get your feathers ruffled, try it! You might like it.

Also, I might add a reminder that while no one owns a frequency, repeaters do have ownership. As such, the repeater owner has the right to specify who can and cannot use a repeater. This applies even if the repeater is open to the public. Many of you may remember that we voted as a club to prohibit a certain ham from using the 146.620 repeater and banned him from membership. This is an extreme action. It's an unpleasant task. However, in a regulated environment like ham radio, the rules apply to all, not just a select few. Regulation of the rules should be left to 2 groups of people, the Official Observers and the *(continued on next page)*



Owners/Trustees of repeaters. On the UARC repeaters, infractions and concerns should be voiced to Tom Schaefer (NY4I) and/or the club officers. At no time should complaints be voiced on air. Personal attacks on air are not in the least appropriate.

Additionally, since the creation of the 146.620 was so many years ago, I might add that it was created as a rag chew repeater. '62 is not an emergency services repeater. It has however been used as such when needed. Traffic is expected to be casual in nature. During drive times, QSO's should be kept short, or at least longer than normal pauses should be left in between. Many of the users only get on during drive time and courtesy would dictate letting mobiles have first go at repeater time.

In a roundtable, make sure to turn the call over to the next person in the rotation either by name or by call. When breaking into a roundtable, give it back to the person who gave you the break. Remember, it was their turn to have a comment about the topic at hand.

We have a plethora of repeaters in the valley, most of which sit idle. Program some of them in and tell your friends where you are. Try simplex. This goes back to listening to the input. If you can work 'em cleanly simplex, then move off of the repeater.

Now this is something I know I'll get comments about. When you don't reach someone you've put out a call to, there is no need to "clear" because there wasn't a QSO going on in the first place. This is one of those habits formed around repeaters. No one clears a CQ on HF, why clear a non-existent QSO on 2m FM? Some feel it necessary to clear so that others will know they are relinquishing the frequency. However, they never owned it to begin with. If you do hear someone making a call, wait a decent amount of time before you make your call. This is one of the most contested practices in radio. I for one don't prefer it. It doesn't mean it is wrong, just means it isn't part of my operating habit. It just adds one more transmission to an otherwise busy repeater and non-existent QSO. It is clear to all that your call went unanswered (this from an early VHF society directory). Everyone expects a call to be repeated again if no one comes back the first time.

Along with clearing, I'll add the "for ID" phrase. When giving your call sign, it is obvious that it is for the purpose of ID'ing. "For ID" is strictly stylistic. It is neither right nor wrong. However, it does not improve the quality of your communications. NY4I appropriately points out that in a roundtable where you have not had the opportunity to sign clear, you might throw out "for ID" after your call.

All that said, these are my ramblings. Take these comments for what they are worth. They are aimed at making the hobby

fun and understandable. Too much jargon confuses beginners. '62 is a first contact spot for most of the new hams in the area and should be a model of good operating practice. I've changed numerous on air habits since I started in the hobby, and continue to do so.

73 de N7KG Brett

## Trustee's Corner

**Tom Schaefer NY4I**

Brett spelled it all out there, didn't he? As the trustee of the W7SP call sign, I want to say that I agree. I think we need to remember a few things. First, as you may know, a repeater is a benefit of club membership. Since you are reading this, you are a member of the club. We all hear what we could call "dumb things" on the radio. Maybe we want to jump right in there and "straighten out" the culprit. Well, I have a request: **Don't**. If you hear someone breaking the rules, tell a club officer. Under **no** circumstances should you as a general member feel compelled to tell them anything. It would be better for everyone if you just left it to the club officers and the trustee. I know it is hard sometimes. Just to be clear, I am not just talking about clear rule infractions here. I think what has gotten out of hand on our club repeaters is the notion that there are some self-appointed watch dogs that have been ordained with the right to tell club members how they should operate and what they should do. If you must correct someone, have the decency to do it over the phone – not on the air. So many people listen especially before they get their license. I doubt we would want recent conversations heard on the '62 repeater used as an advertisement for the amateur radio service. To be crystal clear – no one in this club except the repeater committee and the UARC officers have any mandate to monitor repeaters. Look in the prologue on page 2 of this issue. If your name is not in that list, you have only these three choices if you hear something you do not like on the radio: 1) Do nothing and/or tell the trustee, 2) Call the person and tell them in private on the phone, 3) Turn off your radio. That's it; nothing else. I know this may seem harsh, but our repeaters especially with the great coverage the '62 repeater has, are a gift. We have to treat it and everyone that uses it with respect. Many non-hams monitor '62—some because they are interested and some because they are getting a license. Amateur radio has given me so much and I certainly do want a repeater that I am associated with to be the reason someone didn't get a license. That is too great a price to pay because one LID thought the other LID was operating incorrectly.

73, Tom

## September Meeting

### Gordon Smith K7HFV

Have you ever wondered what the people you talk to actually look like? Have you wondered how they arrange their hamshacks? One way you can find out is by operating Amateur Television or ATV.

With ATV it's quite possible to send pictures across town, not only live shots of your shack, but also your vacation videos, the famous shot of what's-his-name falling off the tower at Field Day, and the drug bust at your neighbors' house.

Clint Turner (KA7OEI) will present the program at our September UARC meeting, which will be held Thursday, September 4. Clint has been active in ATV for many years and is one of the forces behind the ATV repeater currently under construction. He may also recruit other members of the ATV community to help with the presentation. They will tell and show us what kind of equipment is necessary to get started and what you can do with it. If you have a camcorder as part of your electronic toy set, then you may be well on the way to transmitting pictures.

As well as regular (fast-scan) ATV there are also some slow-scan modes. These resemble a slide show more than what we usually think of as television needing several seconds to transmit each frame. Their advantage is that they will fit in a normal voice channel and can be used on HF. Clint may give us an overview on these modes as well.

That's Thursday, September 4, at 7:30 P.M. in room 101 of EMCB on the University of Utah campus. For details on getting to the location, see page 2 or the UARC website.

Of course there will be the "standard" features of monthly meetings as well:

- Availability of ARRL books from Fred, the "book lady";
- A chance to sign up for badges, hats, and jackets;
- An opportunity to join UARC or renew your membership
- The chance to meet face-to-face the people you talk to on the air
- The "Elmer Hour," a chance, after the meeting, to get your questions answered by those who have been in the hobby a while; and
- The "Meeting(s) after the meeting": A chance to enjoy pizza or other gastronomic delights with other hams.

## For Sale

**ICOM 738 HF radio.** Great shape, 400 Hz CW filter, Homebrew Rig control interface, Homebrew PSK interface FM, memories, Speech Processor, Great PBT and Notch filtering. Great CW rig as it has a key jack and paddle jack. **\$700**

**ICOM IC271A 2m Base CW/SSB/FM (with the preamp).** Great condition. **\$450**

**Cushcraft R7 vertical.** No radials. 1/2 wave HF antenna 40m – 10m. **\$150**

Contact Tom Schaefer, NY4I [ny4i@arrl.net](mailto:ny4i@arrl.net) or 801-736-2062

Kent 2-lever paddle needs new owner to love and care for it. Essentially in new condition, with cable connector, and original box. Already have two other paddles, and that's all I need. \$95.

Wanted: Used 2M or dual-bander mobile or base station transceiver (not HT) that runs on 12VDC. Looking for reasonably recent model with typical memory setup, PL tones, 25 or 50W, etc.



Call Tom, W7GT at 583-9625, or email at [w7gt@arrl.net](mailto:w7gt@arrl.net).

## Upcoming Testing Sessions

Date	Location	Contact
9/13/2003	Logan	Clyde Best 435-563-9492
9/17/2003	Provo	Steve Whitehead 465-3983
9/17/2003	St. George	Ron Sappington 435-673-4552
9/20/2003	Logan	Clyde Best 435-563-9492
9/26/2003	Roosevelt	R. Chandler Fisher 435-722-5440
9/30/2003	Salt Lake	Eugene McWherter 484-6355
10/04/2003	Salt Lake	Gordon Smith 582-2438

## Member of the Month

**Linda Reeder N7HVF**

(Sorry, but no picture was available at press time)

This month we are featuring Mat Perkins (KD7TEQ). Mat is in the 9th grade and attends Elkridge Middle School. He is the only ham in his family. Mat has always been interested in two-way radio. In fact, Mat and his friends were very active with the family radio service. But when Mat heard about amateur radio and how you could talk much further than you ever could with the family radio service, he was hooked. So Mat downloaded the question pool, studied them and then went and took the test. Mat received his technician license on October 30<sup>th</sup>, 2002.

The thing that really intrigues Mat about amateur radio is the ability "communicate long distances". Mat is very active on the Snowbird inter tie. He thinks it is so wonderful to be able to talk to Idaho all the way from Salt Lake City on his radio. Mat is also very active on EchoLink. Mat and his friends are putting up an EchoLink repeater. Mat was given a 440 repeater from Glen Worthington (WA7X). The frequency is 449.025. It is not up and running yet, they hope to have it up and running soon. They are working on finding a mountain site to house it. Mat is interested in computers. He says computers and amateur radio fit well together. Mat and his friends have their very own web page. If you are interested in finding out more about this web site you can email him at [kd7teq@hammingitup.com](mailto:kd7teq@hammingitup.com).

Mat says he is a member of one of the best clubs around UARC. Mat says he really enjoys the club and activities he has had with UARC. Mat is working on upgrading his ham license and he hopes to become a commercial airline pilot when he gets out of school.

Mat, we wish you the best in all of your endeavors.

## Assistant Microvolt Editor Needed

**Gordon Smith K7HFV**

We announce with regret the resignation of our Assistant Editor, Dale Sargent (KD7NMJ). Dale has done a good, reliable job of maintaining our relationship with the Post Office and getting each issue of *The Microvolt* labeled and in the mail as soon as it was available. Dale resignation leaves open a position on the Board of Directors and it should be filled as soon as possible. We are looking for volunteers to run for the office. Traditionally, the Assistant Editor has been responsible for getting address labels onto the copies of *The Microvolt* each month, getting them bundled correctly, and

delivering the sacks to the Post Office. However, if someone were interested in the position and were more interested in writing and reporting, layout, etc., a different division of duties might be worked out with the Editor, Tom Schaefer (NY4I).

The position would last until the end of 2003, although the volunteer could certainly run for the position in 2004 as well. As a Board member, the Assistant Editor has a vote in matters of general administration of the club.

If you have any interest in becoming Assistant Editor, contact any of the club officers to volunteer or to get more information.

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**<http://www.commproducts.net>  
Bob Wood, W7OAD  
UARC Member**

## Experiences on the 60 Meter Band

**Ron Jones K7RJ**

When the FCC announced that we were being granted a new ham band I had to get on the air the very instant it was made available. I'll say a bit more about the band plan, but first; here is what my first experience on the new band was like.

The band became available July 3, 2003 at midnight local time, which meant that at 10:00PM on July 2, 2003 Utah time the band became available to stations in the Eastern time zone. I was monitoring and right on cue, I started hearing signals, but they were so weak that it was hard to pull out much intelligence, but there were unmistakable amateur radio signals on 5 MHz for the first time. At 11:00, the central part of the country got access to the band. The signals were fairly good and, surprisingly, everyone shared the channels in a very professional way. The band had a number of signals, but it was not a madhouse. Then it came our turn. I was monitoring WWV and right at the top of the hour, I put out a CQ and immediately got answers. In fact, I became the sort of net control for that channel and worked a number of stations in rapid succession. It was great fun, sort of like being on a rare island. After I worked out the frequency, I bounced around to the other channels and did some hunt and pounce operating.

At 1:00AM our time, the West coast had access to the band. This meant of course, our good friends in California (the W6's) could get on, and get on they did. Suddenly, the band took on a totally different character. Every channel became crowded. Somehow, people were working each other, but there were literally two and three QSO's going on at once on each channel. It was quite the zoo! I worked a few stations in the pile ups, but it was a totally different experience than it was an hour earlier. After about 45 minutes, it had calmed down enough that I was able to talk for a few minutes with a friend of mine from Seattle, but we kept the contact fairly short because we all share only 5 channels.

There was one glorious hour, between midnight and 1 AM, when there was a low frequency amateur band with absolutely no California stations! I was part of a once in a lifetime experience.

Now that the newness has worn off and the first night madness is over, the band is one of the most pleasant to operate. It is

now a fairly low-key band with people easily sharing the channel. Most contacts are fairly short, I haven't heard any long-winded chats that go on and on and on, but the contacts are not just quick exchanges of reports and move on to the next. The only bad thing about the band is that it is fairly noisy, especially during the day. Not surprisingly, it is a little like 80 meters in that regard. There seems to be good propagation every evening out to about 1000 miles. There are occasional openings all the way to the East coast. I even heard Hawaii once, which was quite exciting. I don't know how well the band would be for local communications, say in a 50 mile radius. It may be awful but I have worked Southern Utah a number of times with really good signals.

Now for a few observations and personal opinions. There is plenty of information available about the specifics of the regulations on 60 meters, so I don't want to get into the details, but I will summarize the important characteristics of the 60-meter band. The 60-meter band has 5 discrete frequencies we can use, we must use only USB modulation, and our power is limited to the equivalent of 50 watts to a dipole (ERP). The power regulation is interesting in that, not only are we limited to what is fairly low power, what is regulated is the amount of power we radiate. That means that if we want to put up a big tower and giant phased antenna array, we would have to adjust our power so that it radiates no more power than 50 watts to a dipole would. (This also leads to the interesting fact that the 60 meter band is the only band where we are allowed to have an input power greater than a KW, provided we deliver it to a crummy enough antenna.) This has what I think is a wonderful effect. The 60 meters is the great equalizing band. Almost everyone has more or less the same type of station. Unlike 20 meters where the difference between a modest station and one of the big guns is many orders of magnitude (a modest station may be 100 watts to a dipole and a big gun can have phased high gain antennas arrays perched on 120 foot towers fed with KW amplifiers) There is a great deal of disparity between the types of stations that are vying for the frequency and contacts, whereas on 60 meters we all run about the same setup. I have found that if I can hear them on 60 meters, I can work them because the guy on the other end is running about the same thing I am.

My station is pretty typical. I use Kenwood TS-440 and a G5RV antenna. I use an antenna tuner. I don't let my power meter peak above about 30 watts. I crank the power down by simply turning the mike gain down. *(continued on next page)*

Turning the “carrier” down, doesn’t do anything in the sideband mode.

We are granted 5 channels. The tendency is to call them Channel 1, channel 2, etc. The problem is that we may be granted more channels, some of which may fall between the existing channels.

I would encourage you to give the band a spin. The ARRL, and others, have tons of information about regulations you should read through before you get on the air. Be especially careful to be on the right frequency, notice where you set your dial as opposed to what the FCC lists as the center of the channel. I put the five frequencies in 5 memories so I can easily QSY. If you have a 100 watt rig, crank the power down. You will have best luck on the band after sunset when the band quiets down a bit. You will hear a few very weak stations, too weak to work, but keep listening; eventually you will hear someone who has a good signal. If you don’t, call CQ. Almost every time I have called CQ when the band seems dead, I have gotten an immediate answer. My typical contact is about 500 miles out.

Good luck and have fun.

Ron Jones K7RJ

## **AVERT’S Annual CERT Drill**

**SATURDAY, SEPTEMBER 13, 2003**

At Jordan High School

95 East Beetdigger Blvd. (9825 South State Street), Sandy

Drill Registration:	8:00-9:00 AM
“Victims” Registration:	8:00-10:00 AM

Drill Practices:	9:00, 10:00, 11:00 AM and Noon
Seminars:	10:00 AM – 2:00 PM

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- Preparedness items
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The public is invited to observe the process of disaster response as it progresses from neighborhood to federal levels, to attend the emergency preparedness fair, to be a volunteer “victim,” and to learn why the CERT program is so important.

For more information, go to AVERT’s web site:

[www.avertdisasters.org](http://www.avertdisasters.org)

## **Homebrew Night Coming Soon!**

**Gordon Smith K7HFV**

Homebrew night is coming! UARC will have its annual homebrew night on Thursday, October 2, so if you haven't been busy homebrewing, there's still time.

Of course we don't mean you should mix up the family recipe in the bathtub. “Homebrew” in the amateur radio sense means home-built equipment. Each year we devote one club meeting to a display of equipment that our members (and persistent non-members) have built themselves during the year.

QST and other magazines have lots of homebrew projects every month. Hams build not only transmitters and receivers (including QRP)—but also keyers, linear amplifiers, power supplies, transverters, microphone preamps, repeater controllers, and other gadgets that haven't been named yet.

Everyone is welcome at homebrew night from the seasoned pro to the first-time beginner. Everyone can bring a project to show off. Each person will get a few minutes to explain his project, how it works, what its good features are, and what it took to build it.

If your project is too big to bring in (for example, your full-sized, 160-meter beer can beam), take pictures and bring diagrams. But the important thing is: get building!