The *Microvolt*

March, 2010

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UARC
c/o Dick Keddington
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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 2010 Board

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Executive VP: Andrew Madsen, AC7CF	801 419-8378
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Program Chair: Gary Wong, AB1IP	801 582-0906
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Committee Chairpersons and Members

"Book Lady": Fred Desmet, KI7KM	801 485-9245
Historian: Ron Speirs, K7RLS	801 968-4614
Field Day Chair:	
Club Trustee: Brett Sutherland, N7KG	801 298-5399
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://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.

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 53, Issue 3, March 2010

March Meeting: Weather Spotting

Across the country, many amateurs have volunteered their time and equipment to help the National Weather Service. At the coming UARC meeting we will learn more about how.

The next meeting of the Utah Amateur Radio Club will be on Thursday, March 11, at 7:30 P.M. Our speaker will be Kevin Barjenbruch who will be telling us about weather spotting. He will tell us about how the Weather Service incorporates amateur radio, how to speak the "weather language," and how to recognize important weather situations.

Again, meetings are now on the *second* Thursday of each month, so the coming meeting will be Thursday, March 11, at 7:30 P.M. Our meetings during the spring semester are being held in room 2230 of the Warnock Engineering Building on the University of Utah campus. Room 2230 is in the same position as 1230 where we have been meeting, but one floor up. Our traditional parking on the east side of the building is limited due to construction, so another recommended parking area 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. See the map for information on finding the building. For a map and directions for finding the building, check the club web site at http://www.xmission.com/~uarc/ab1ip_meetmap.html

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 March get-together will be at "Charlie Chow's Dragon Grill," 255 E. 400 South in Salt Lake City.

Latest News

Our Cover

Our cover this month shows the annual Utah VHF Society Swap Meet, held on February 27. This event is usually the state's largest amateur radio gathering. All VHF Society officers were re-elected and much equipment changed hands.

UARC was well represented by Brett Sutherland, N7KG, our new "Book Lady"; Secretary Dick Keddington, KD7TDZ, taking renewals and new memberships; and Bryan Mogensen, W7CBM.

Field Day Chairperson Needed

We are in great need for a volunteer to be Field Day Chairman for 2010. Field Day is the annual nationwide contest to test portable operating skills and is held on the fourth full weekend in June. UARC has traditionally entered from a site near Payson Lakes running at least two stations. This can be a great opportunity for newcomers to get acquainted with contesting and HF. There are normally plenty of higher-class licensees on hand to act as control operators for those who would like to try their hands on the mike or key. However, if we are to continue entering Field Day, we need to find someone with enough interest to oversee the effort.

Contrary to popular opinion, the Chairman does not need to do all the work (although no one would complain if he wanted to). There are a number of people with experience setting up the club's equipment and would be willing to help on a Field Day Committee. But someone needs to oversee the whole operation, coordinate activities, and make sure all the required jobs get done. We will certainly need many kinds of help but we need one person to bring it all together. If you can help, get in touch with one of the officers.

Joining ARRL

UARC is affilliated with the American Radio Relay League (ARRL). ARRL members receive *QST* magazine, the premier amateur radio publication, and also support national efforts to influence rules and legislation favorable to amateur radio. ARRL also sponsors many contests, incoming and outgoing QSL bureaus, awards, answers regulations questions and offers technical advice.

Members of UARC can join ARRL or renew their ARRL memberships through the club, and the club gets to keep part of the dues for use locally. The easiest way to do it is simply to speak to the club Secretary at any club meeting. It can also be accomplished between meetings with a little help from the web. First, save the ARRL application form at :
www.arrl.org/FandES/field/club/forms/clubapp.pdf
and print it out. Then fill in the blanks and send the form along with your ARRL dues to the UARC Secretary:

Richard Keddington, KD7PDZ
1033 Woodside Drive
Holladay, Utah 84124-1632

These instructions can also be found on the club web site on the "History and Information" page.

Gettting ARRL Books

Our new "Book Lady," Brett Sutherland, N7KG, has been working hard to make ARRL publications readily available, (although the rumors that he has been stopping people at gunpoint and refusing to let them pass until they purchase a book are simply not true). Brett (or one of his minions) will be at each club meeting and have books available for perusal by about 6:45 on meeting nights.

It is often possible to examine books in between meetings by visiting Brett at his office near South Temple and 600 East. However, Brett is not always in the office and not always available even when he is in. He recommends calling first. He can be reached at (801) 994-9944, Ext 158.

Idaho State Convention

We have received word that the Idaho State (amateur radio) Convention will be held in Boise April 23-25. The location is the airport Holiday Inn. Those who preregister (before March 19) will receive a discount. The organizers report that they have signed twice as many equipment vendors as last year, and will be giving away 20-30 handheld and mobile transceivers.

For more information, see the convention website at :
http://www.idahostateconvention.com

The ARISS Antenna Project

Part 2

By June Anne Olsen, KF7CLR

The story so far: Volunteers have been working to construct an antenna for use making a space shuttle contact for Midvalley Elementary School. Their work is taking place at "Leamington Station," a one-time AT&T microwave relay station near Oak City. Work has continued for five weekends, through the Friday of Thanksgiving weekend.

The next morning, Saturday, November the 28th, we were all up by 8:00. I usually prepare breakfast for the gang, down at Leamington, but the log states that "breakfast was haphazard and individual." After breakfast, the task of getting the antenna down off the roof was the primary task. To protect the roof, the antenna stand had been placed on some big sheets of plywood we keep down there. These, as well as the now-emptied water containers had to be lowered down. The Remote Signal Strength Meter and its antenna were also fetched down off the mountain.

By 10:40, we were joined by Leland Christensen (KC7PVF). One look at his red SUV with the four antennas, and all I could think to say was, "My heavens! It's a Porcupine-mobile!" With all those antennas, people may ask your call sign, but they will never ask, "Are you a Ham?" (I later asked the others what purpose all of those antennas served. There seem to be several thoughts about that. One is that they are certainly decorative, and one is that the roof of one's truck is as good a place as any to store one's antenna collection. I wondered if he used them, one at a time, based on their wavelengths or something.)

Randy Kohlwey, WI7P, and Steve Olsen, AE7AC, had come up against one problem which could not be handled at Leamington Station: the azimuth rotor had frozen up. Electrically, it was still OK, but there was no way to get it to move. Fortunately, Randy believed he could get one from the L3 ham club. He thought that it used the same plug and that it should be compatible. Unfortunately, we'd have to set up everything at the school without it, since he wouldn't be able to get it until Monday.

By this time, we were coming up fast upon a probable deadline. The football game, some would say *the* football game, between the University of Utah and BYU, was scheduled to start at 3:00 in Provo. Since we'd have to drive up I-15, right past the stadium, we were determined to be on the road before the game started. Brent, Steve Olsen's brother, headed south just before 12:30. (He'd been on his way south to begin with, but stopped to spend the night at Leamington

The antenna is assembled at Leamington Station
(*Photo by the author*)

Station and then stayed around to help.) All the trucks were packed up and Dave headed north at 1:26 with the rest of us not too far behind him. We contacted Carla by radio over the intertie on the drive up so that we'd all be converging on Midvalley Elementary School at pretty much the same time. We were all talking back and forth, and I remember thinking that poor old John Stodt would be left out of the loop: he didn't have a ham radio with him because he hasn't got a ham license.

Not too long after we arrived at the school, we were greeted by one of the really great sights of this whole antenna project: Pete Robbins (WZ7ZZ) and Ray Gillen (KE7SVV) brought a big truck with a crane mounted on it. Our roof at Leamington Station is about sixteen feet off the ground, but the roof of the school was more than that. It had, besides, low parapets, which made lifting things up onto the roof a little trickier. The only human access was by a ladder located in an interior room of the school, a long way from where the antennas needed to be mounted. We set things up on the highest part of the school, the roof of the auditorium. Pete and Ray, past masters at this kind of thing, easily managed to get all the pieces of the antenna, including the big pieces of plywood and the water containers, up onto the school's roof. They also got Randy's "eggbeater" antenna up there, the one that would be our back-up in case the primary antenna system failed. Getting all of that equipment up onto the school's roof saved a lot of trouble. Carla had deli sandwiches, cut fruit, cookies, and other foods in the teachers' lounge for us to eat when the antenna was pretty much in place. She had thought we would be joining her for a late lunch, but it was more like a supper by the time everybody got together.

It was clear to see that the students had been preparing for this event at least as long as the hams had. There were posters and information about the Space Station all along the walls of the school corridors. The call letters of the various hams most particularly involved were also there. I noted Carla's, Dave's, Randy's, and Steve's, among others. (Carla assured me mine would have been there, too, if she'd known I was going to be involved.)

Steve and Co. were back again the next day, as I recall, and Monday evening, too. I missed the Sunday session, but the Monday session was probably typical. Steve had been hauling tools and equipment home with him every night, and among the items he'd fussed with on Sunday had been our old Radio Shack sound mixer. He'd hoped that the work he'd done on it since Saturday would be enough to cancel out the buzz it produced when they'd been trying to use it at the school. He was thrilled that Gary Wong (AB1IP) had brought along not only his expertise but also a professional-grade sound mixer. Ham equipment had taken over two long tables and some of the stage area by this time. Everyone involved with the project seems to have brought an individual computer and these, too, festooned the long tables. Randy had, by this time, successfully replaced the elevation/azimuth rotor.

As far as I could tell, the stage area is to the north end of the auditorium. It was possible to go in and out to the back parking lot through a door located to the northeast of the stage itself. The ham tables were set up in the northeast corner of the auditorium, one parallel to the stage and the other running north and south. To accommodate the plethora of wires running up to the antennas on the roof, the window above the north-south table was left ajar. There was a lot of computer work going on. For one thing, the computer-controlled azimuth/elevation antenna was directed by a program that took ephemeris data and pointed the antenna accordingly.

I managed to get to most of the "dress rehearsal" on Tuesday afternoon. By then they had the chairs up. There were seven or eight rows of chairs, set up facing the stage and starting about a third of the way back from it. The questions of twenty students had been chosen for the event, and the students whose questions they were stood in a line, taking turns and rehearsing the proper way to use the radios. "My name is Tyler. My question is: How do you stay healthy in space? Over." They

ran through it several times, until everyone seemed pretty comfortable.

Wednesday, December 2nd, 2009, The Big Day. We were there early to make sure everything would be ready to run on time. Carla and Dave and other teachers, too, had put up more NASA posters around the auditorium by then, and there was a distinct tremor of anticipation running through the crowd. Kathryn Blunt and Kelly Dumont, information technologists, had come to set up the live Web feed. Jim Sheely, in charge of the building, seemed to be several places at once, and was indispensible to the effort.

Hams began to show up. Carla had had a row of chairs set against the east wall, just for us. Rex Estes (K7XYC) and his wife, Lona (N7XYC), were two of the first ones to show up. I sat and chatted a while with Lona while Rex headed straight to the tables with all the wires on them. Pete and Ray came to see how things turned out, and I also noted Don Stevens (KB7PBC) and Andrew Madsen (AC7CF). There were probably others, but by this time the school kids had come in, as well as the guests and members of the press. The fourth graders sat on the floor in front of the chairs to the west, and the fifth graders sat on the floor in front of the chairs to the east. The sixth graders, guests, and members of the press sat in the chairs behind them. Dave Bettinson was at a small table in the center, near the front, with the question kids lined up along the area just in front of the stage. Hams were sitting in chairs over against the east wall.

Steve was wandering around with his cell phone held to his ear. He was in constant contact with Charlie Seffana (I never did get the spelling, and so I apologize if Charlie spells it some other way). Charlie was our mentor and liaison with NASA.

Computers use ephemeris data to indicate just where a satellite will be at a given time, but there are potential inaccuracies in this computer data, so Charlie had had Randy begin calling the International Space Station just a bit before the computers said the station would be in view, so that we would be able to get in every possible second of time.

And this is where we started this story: Randy Kohlwey, saying, "NA1SS, this is W7SP,over."

And then, finally, the response, "This is Jeff Williams, KD5TVQ, aboard the International Space Station."

The kids grinned from ear to ear and shook their hands in the air, mouthing a silent "Yayyy!" I think the entire row of hams took breaths simultaneously.

It was a complete success. The primary antenna worked perfectly. The secondary "eggbeater" antenna was never used, nor was the third one, a whip antenna set up "just in case." Everything had worked to our advantage. The sky was clear, the trees to the north of the school had lost all their leaves (which might otherwise have caused interference), and we'd been able to maintain contact for long enough that all but one of the twenty kids had had a chance to ask their questions. The next week it snowed and getting on that roof would have been treacherous in snow.

All too soon, it was over. The fourth and fifth graders filed out and went back to their classrooms. I'd been out in the hallway, making sure that the news people got down the right call signs to go with the names. When I got back, I found that Dave had handed Steve the microphone and was having him answer questions from a line of kids. Each would ask Steve a question, and then move out of the way for the next kid in line. One little guy asked his question and then ran round to the back of the line so he could ask another. I remember particularly a couple of the questions, and Steve's answers. One was, "How much did it cost to set this up?" Steve's answer was, "I've been afraid to tally it up because it'd probably scare me." But my favorite was: "How did we come to have the International Space Station?" Steve's answer: "Somebody dreamed it up, and then somebody else said, 'I can do that'."

I went up on the roof, to take pictures, and found Ron Jones (K7RJ) and John Hardy (K7ALA) helping to get things picked up and packed up. We dumped the water down the storm drains. The usually quiet Randy Kohlwey was up there, too, grinning ear to ear.

Member of the Month

June Anne Olsen, KF7CLR

By Linda Reeder, N7HVF

This month we are featuring June Anne Olsen, KF7CLR. June and her husband, Steve, whom I will be featuring next month, received their amateur licenses in May 2009. June's husband

Steve's call sign is AE7AC. June and her husband, Steve, have been exposed to amateur radio for many years. They are close friends with Randy Kohlwey, WI7P. They go caving together. They are also close friends with Morris Farmer, AD7SR.

June and Steve have an old AT&T Longlines station, down near Oak City. Leamington Station is only a couple of hours out of town. This is where there ham shack is. They had this station long before they received their ham licenses, in 2003. This was one of the deciding factors for obtaining their ham licenses. Steve loves to hike and June wanted to be able to communicate with him and the phone services at their getaway are poor. Morris Farmer, AD7SR, was teaching a ham radio class so June and her husband took the class. June's husband, Steve, obtained his Extra Class license. June is working very hard on getting her General class license. She was very impressed with Morris's low band station. She loves the idea of reaching out and talking to people all around the world.

June and Steve have a family business called Red Rock Analog Design. June solders circuit boards. This business has been around for ten years and they have been married for 38 years.

June, Steve and Randy Kohlwey were instrumental in building the antennas that were needed so that Midvalley Elementary school could communicate with the astronauts. Not only did June build the cables for the antennas she was there during the broadcast helping the media get the story. She copied the names of the individuals participating in the broadcast. There was an article in the *Deseret News* about this event. June has written an in-depth article in the February and March.issues of *The Microvolt* about this event.. She tells the story of what they went through to make this happen.

June plays the recorder, which is a triple flute. She is a member of a band. The name of this band is SCA which stands for Society Creates A historical group They recreate the historical renaissance music. They meet every Thursday so she doesn't get to come to the UARC club meetings very often. June and Steve are members of UARC.

June is also interested in historical paper dolls.

June, we wish you the best in your endeavors especially in upgrading your ham license.

Examination Schedule

3/11/10	(Thu.)	Logan	V.P. Rasmussen, N7JFG	(435) 770-0630
3/17/10	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
3/17/10	(Wed.)	St. George	Gary O. Zabriskie, N7ARE	(435) 674-2678
3/30/10	(Tue.)	Salt Lake City	Eugene McWherter, N7OVT	(801) 541-1871[1]
4/03/10	(Sat.)	Salt Lake City	Gordon Smith, K7HFV	(801) 582-2438[1]
4/14/10	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
3/17/10	(Wed.)	St. George	Gary O. Zabriskie, N7ARE	(435) 674-2678
4/27/10	(Tue.)	Salt Lake City	Eugene McWherter, N7OVT	(801) 541-1871[1]

[1] Preregistration required. Contact the indicated person.