

The *Microvolt*

June, 2010



Your Field Day Operating Position is Waiting!

Prologue

Publication: *The Microvolt* (USPS 075-430) is the official publication of the Utah Amateur Radio Club, Incorporated, 3666 S. State Street, Salt Lake City, UT 84115-4848. 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, 1933 Woodside Drive, Holladay, UT, 84124-1632.

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, 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.

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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>

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The Microvolt

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June Meeting: All About Field Day

Field Day: the most popular operating activity in amateur radio — What is it? Why do people like it? Why does everything go wrong? These are some of the questions that UARC's June meeting will attempt to answer.

Field Day is an annual contest sponsored by the American Radio Relay League (ARRL) to test amateurs' ability to set up stations in the field (somewhat literally) and keep them running for a 24-hour period. The event encourages multiple-operator stations, and clubs make up a large portion of the competitors. UARC will be entering from a site near Payson Lakes on the Mt. Nebo Scenic Loop.

Field Day always takes place on the fourth full weekend in June which puts the 2010 event on June 26 and 27. The UARC program featuring it will be on Thursday, June 10 at 7:30 P.M. in room 1230 of the Warnock Engineering Building. (Yes, we're back on the ground floor this month.) It will feature slides from previous Field Days and plans for this year's event. For the newcomers, this is a chance to find out what it's all about. For the seasoned veterans, it's a chance to recall why you stopped coming.

The June meeting will also be the last chance to purchase steak-fry reservations at a Thursday meeting. The annual steak-fry and swap-meet will take place Saturday, July 17, in Big Cottonwood Canyon. Cost is \$10 per person. Everything is provided, but you might want to bring a table service if you don't like cutting a steak on a paper plate.

Again, meetings are now on the *second* Thursday of each month, so the coming meeting will be Thursday, June 10, at 7:30 P.M. Our June meeting will be held in room 1230 (the "Duke" classrom) of the Warnock Engineering Building on the University of Utah campus. Some of our traditional parking on the east side of the building is blocked off for construction, so if you find it full, 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. For a map and directions for finding the building, check the club web site at http://www.xmission.com/~uarc/ablip_meetmap.html

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
- An opportunity to buy tickets to the July Steak-Fry
- 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 June get-together will be at “Su Casa,” 516 E. 300 South in Salt Lake City.

Latest News

Field Day

Never operated HF before? Want to have the chance of working stations all over the country with ease? Want to see how to set up HF antennas? Field Day might be just what you’re looking for.

Our cover this month (thanks to Rick Asper, AC7RA) shows a station from last year’s event just waiting for an operator. You too can take a seat in a luxuriously appointed tent amid the spectacularly clean mountain breezes and communicate with other operators all over the world without a phone line or an internet connection in sight. It’s very safe, too. Far less than one percent of our operators have been lost to grizzly bear attacks, forest fires, avalanches, and 1000-foot falls over the years.

UARC will be entering the annual nationwide Field Day contest on Saturday and Sunday, June 26 and 27, from a site near Payson Lakes on the Nebo Scenic loop. Some folks from UARC will be camping at the site as early as Thursday the 24th.

The contest is a chance to test amateurs’ emergency preparedness by seeing how well they can set up a station away from normal services and use it to communicate with good speed and accuracy for a 24-hour period. (For full contest details, see <http://www.arrl.org/field-day>.) It is a great chance to combine camping and amateur radio.

If you are planning to spend one or more nights on the site, you must plan to take care of your own food, water, and shelter. We will have “portajohns” available, but the site has no amenities otherwise. There is an improved campground

about a half mile back on the road where water and picnic tables are available.

Saturday evening features a pot-luck dinner. The club will provide a main course. Everyone is invited to bring a side dish of their choosing to feed 20-30 people.

Help Needed; Bribes Available: Of course for our Field Day to be at all successful, a lot of preparation is needed. There will be a chance at the June meeting to sign up for duties on the Field Day Committee and provide your shirt size. Here are some of the things for which we still need help:

- Setup and teardown
- Providing tables and chairs
- Computer logging setup and testing
- Towing the small generator trailer
- Saturday night dinner
- Antenna planning
- Six-meter station
- Satellite station

Getting there: Here is how to reach UARC’s site:

1. Assuming you are starting from the Salt Lake Valley, go south on I-15 to the first Payson exit, exit 250. Take the exit.
2. Go left at the end of the exit ramp which should put you on Main Street (aka SR-115). (You are really going south at this point although it may seem like east.)
3. Turn left on 100 North, aka SR-198.
4. Turn right on 600 East, also called “Peetneet Boulevard.” This turn is at the top of a hill at a picturesque old school.
5. Follow 600 East until it takes you to the mouth of Payson Canyon. At this point

note your odometer reading or reset your trip odometer.

- 6. Watch for landmarks at these approximate mileages:
 - a. 11.1: Payson Lakes Day-use area on the right.
 - b. 11.7: Payson Lakes Campground.turnoff on the right.
 - c. 12.3 Guard station turnoff on the right.
- 7. At the guard station turnoff on the right, don't take the right turn, but instead turn *left* onto a dirt road. Within a few hundred yards you will see the camp area.

\$10.00 for the full steak dinner including potato, salad, corn, and dessert. Reservations can be made through the club Secretary at the June meeting, at Field Day, or by sending \$10 per person to the Secretary. (See inside front cover for address.)

To find the steak-fry site, go approximately 10 miles up Big Cottonwood Canyon. (Big Cottonwood is the canyon that goes to the Solitude and Brighton ski resorts.) Look for a small sign marking a turnoff on the right for "The Spruces." If you reach Solitude, you have gone too far.

Steak-Fry and Swap Meet

UARC's annual Steak-Fry and Swap Meet will take place on the afternoon of Saturday, July 17, in Big Cottonwood Canyon. The steak-fry takes the place of a regular July meeting. We will again be in Area 7 of "The Spruces" campground. Steaks will likely start cooking about 5 P.M. If you have something to sell, plan to come earlier, perhaps around 2 P.M.

Reservations are necessary. Tickets this year are

Net Help Needed

We should be particularly appreciative of the efforts of Gary Openshaw, KC7AWU. This long-suffering operator does the "Other Club Information" portion of the UARC Information Net for three of the four Sundays each month (and sometimes four out of five). If anyone would like to take on one of the Sundays, contact Gary at (801) 484-3407.

The UARC Information Net meets every Sunday at 2100 Mountain Time on the club's 146.62 MHz repeater system.

Examination Schedule

Date	Day	City	Contact Person	Phone
6/02/10	(Wed.)	Ogden	Mary Hazard, W7UE	(801) 430-0306
6/02/10	(Wed.)	Salt Lake City	Edward J. Sim, N7RTA	(801) 918-6111
6/05/10	(Sat.)	Salt Lake City	Gordon Smith, K7HFV	(801) 582-2438 ¹
6/12/10	(Thu.)	Logan	V.P. Rasmussen, N7JFG	(435) 770-0630
6/16/10	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
6/16/10	(Wed.)	St. George	Gary O. Zabriskie, N7ARE	(435) 674-2678
6/29/10	(Tue.)	Salt Lake City	Eugene McWherter, N7OVT	(801) 541-1871 ¹
7/07/10	(Wed.)	Clearfield	Mike Youngs, KK7VZ	(801) 573-3922
7/21/10	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
7/21/10	(Wed.)	St. George	Gary O. Zabriskie, N7ARE	(435) 674-2678

¹ Preregistration required. Contact the indicated person.

UNITEC-1 On The Way to Venus

(Thanks to ARRL)

The Japanese UNITEC-1 space probe has been successfully launched and is now beginning its mission to the planet Venus. What makes this mission of particular interest to amateurs is the fact that the UNITEC engineers have added a 5 GHz Amateur Radio beacon to the spacecraft and they are encouraging hams to attempt to receive it.

On May 21 Japanese ground stations reported receiving the CW and FSK beacons (call sign JQ1ZUN) at a distance of about 300,000 km (186,000 miles). They measured the beacon frequency at 5839.91 MHz. (The nominal frequency was 5840.000 MHz.) This falls in our 5-cm band, 5650-5925 MHz.

The data is transmitted using two microstrip patch antennas, each receiving a power of 4.8 watts, for a total of just 9.6 watts.

The web site reports that this nearly 100 kHz frequency difference is more than was expected and might necessitate the use of wide-band receiving equipment. The data format is extremely narrow band (the CW portion is sent at one baud

per second using regular on-off keying) so that very narrow-band receivers might be used to minimize noise and allow reception even when the signal strength arriving on earth is extremely low. About 96% of the data transmission time is in the CW mode while the remaining 4% is sent using 1200 bps AFSK modulated onto the main carrier via FM.

Data included in the telemetry transmitted include current temperature from eight different sensors on board the spacecraft, as well as minimum and maximum temperatures sensed during a period before transmission.

As the spacecraft makes its way toward Venus it may become the source of the most distant amateur radio signal ever transmitted back to earth.

More information about the spacecraft including data formats and free analysis software is available at:

<http://www.unisec.jp/unitec-1/en/top.html>.

FCC Proposes Rule Changes for 60 meters

Responding to a petition filed by ARRL in 2006, the FCC has proposed several changes to the rules governing operation on the 60-meter (5 MHz) amateur band. The Notice of Proposed Rulemaking (NPRM) was adopted on March 11, 2010.

This band is unusual among amateur bands in that it allows only upper sideband voice communication and only on five specific channels. Maximum output power is 50 watts PEP referenced to a half-wave dipole antenna.

The reason for these restrictions is that amateur use of this band is secondary to the fixed service for both federal and non-federal use.

Rules allowing amateur use of the band were first enacted in 2003 because it was thought that this frequency range could be useful in emergencies, particularly during nighttime hours, for distances too short for the 40-meter band and too long for 80 meters.

ARRL's petition requested several changes to the rules:

1. The 5368 kHz channel be replaced by 5358.5 because 5368 was rarely available due to a digital signal found there.
2. Three additional emission types be allowed: CW, PSK31, and PACTOR III.
3. The maximum ERP on channels in the 60 meter band be increased from 50 to 100 W PEP, provided that amateurs utilize Voice-Operated Transmit (VOX) while in the single sideband emission mode, so as to permit the amateur operator to hear an attempt by another station, which may be a Federal user, to utilize the channel.

The Commission acknowledges that the record of amateurs sharing the 5 MHz channels with other services has been a good one and, to date, there have been no reports of interference to the Fixed Service. It also acknowledges that the changes may enhance amateurs' ability to communicate effectively on the band.

The ARRL pointed out that FCC could require amateur operators to limit the length of transmissions in the two data emission modes "in order to better position amateur operators to avoid causing harmful interference to primary operations and suggests adopting a rule that incorporates a general requirement to limit the duration of data transmissions."

In the NPRM the FCC seeks comments as to whether a rule addressing transmission limits "would help ensure that in the currently infrequent instances in which Federal agencies exercise their

primary use of the 60 meter band frequencies, those amateur licensees who have been operating on a secondary basis will be better positioned to avoid causing harmful interference, which is prohibited." If commenters support a specific time limit, the FCC wants to know whether a transmission length of three minutes would be sufficient; if not, what limits would be more appropriate.

In addition, the FCC is also seeking comment on whether "amateur stations should be permitted to transmit emission types in addition to the four discussed above in the 60-meter band without increasing the likelihood of interference to primary users." To the extent that commenters identify such emission designators, the FCC would like them to discuss their "use and benefits and, in particular, how the use of those emission designators can be balanced with our continuing interest in protecting primary stations in the 60-meter band."

ARRL justified the proposed power increase from 50 to 100 watts on the basis of most commercial transceivers having 100-watt capability and the desirability of higher power during summertime conditions when static levels may be high. It suggested that those using the higher power be required to use VOX so they might be more quickly aware of any attempt by a primary user to use the channel. The FCC requests comments on "whether a VOX mode of operation might increase the potential for interference because of its susceptibility to keying a radio to transmit under high surrounding noise environments such as might be found in an emergency operations center."

The proposal will be open for comments as soon as it is published in the *Federal Register*.

Member of the Month

David Canzonetti, K7DAC

By Linda Reeder, N7HVF

This month we are featuring David Canzonetti, K7DAC. David has been interested in amateur radio since he was a youngster. When David was in high school he had many friends who were interested in amateur radio, but David was very active in sports and this took all of his time. So amateur radio was in the background for quite some time. David played football, basketball, and baseball on both high school and college teams.

David attended Columbia University in New York City where he studied art history. He attended graduate school at the University of Utah where he received his degree in architecture.

David now works in in architecture. He works for Town EDA Architect. David said most of his career was working in contracts. For four years now he has been back in architecture work..

David and his wife, Eileen, have been married for 35 years. They have two daughters and one granddaughter.

David finally got into amateur radio in April, 2005, when he received his Technician license. In March, 2006, he obtained his General license. His previous call sign was KE7DQY. In July of 2007 David got a vanity call, K7DAC which stands for his initials David A Canzonetti.

David's favorite thing about amateur radio is emergency services. David is a member of Salt Lake County ARES. In fact, ARES ran some

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classes in amateur radio and David attended those classes. He is the liaison for the Salt Lake County ARES and works with The American Red Cross. David enjoys the emergency drills and community service. Just recently David participated in the Salt Lake Marathon. He also participates in the Desert Marathon. David runs in the Wasatch 100 Endurance Run every year in September. David is looking forward to the bicycles races this summer.

David really enjoys Field Day. He goes to Payson Lakes and helps UARC set up antennas. He is hoping to be able to attend again this year. At first he thought he wouldn't be able to go but something has come up and his plans have been changed, so we hope he will be there.

David has portable HF gear because of his emergency commitment. He enjoys getting on the low bands and is looking forward to the upswing when the bands will be opening up again. He does have an HF station at his home, but had to take down the antenna for roof repairs.

Besides being a member of Salt Lake County Ares, David is a member of ARRL and UARC.

David we wish you the best in all your endeavors