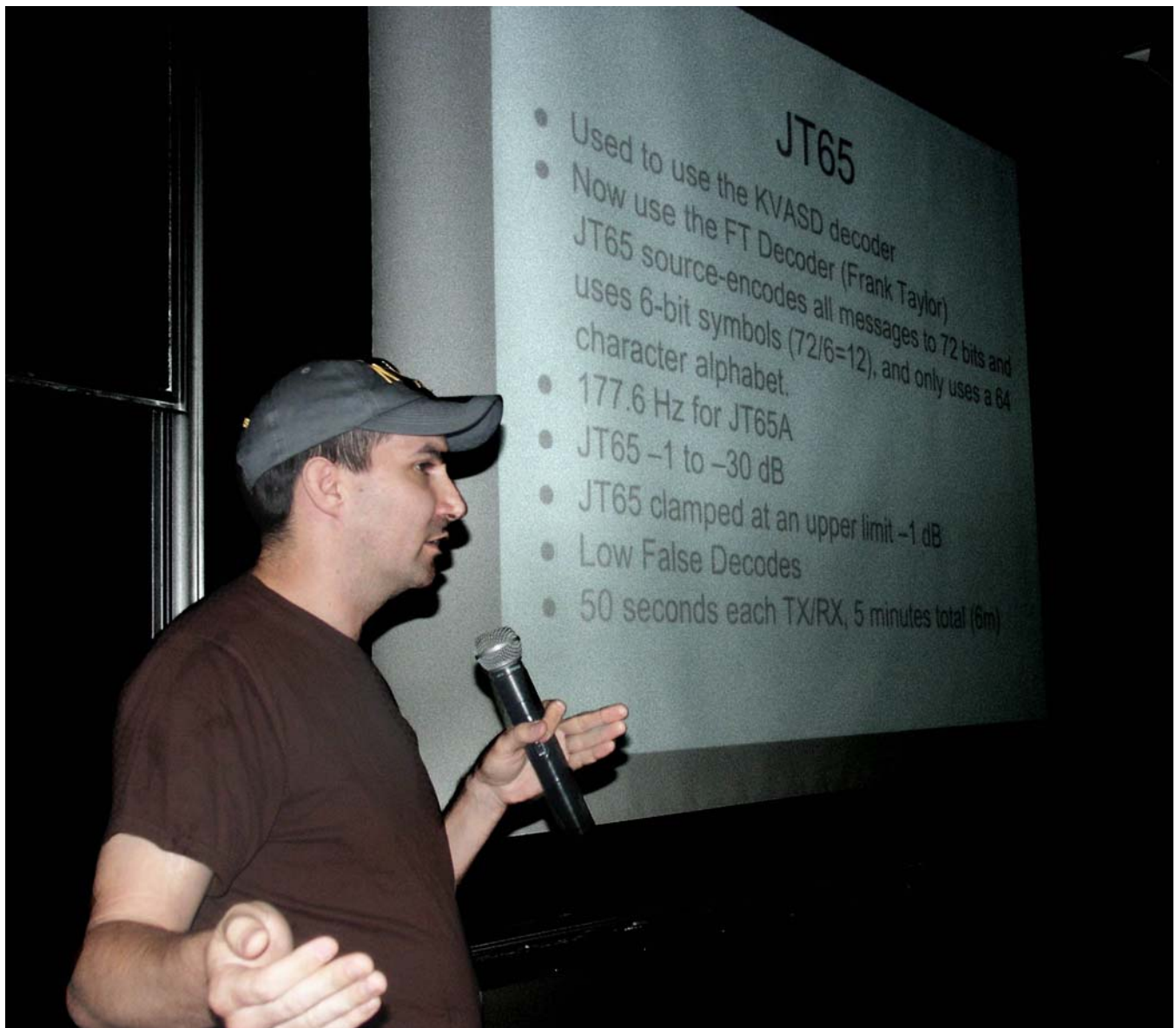


The *Microvolt*

June, 2017



Prologue

Publication: *The Microvolt* (USPS 075-430) is the official publication of the Utah Amateur Radio Club, Incorporated, 699 E. South Temple Ste 100, Salt Lake City, UT 84102-1282. It is published monthly except August. Subscription is included with club membership at \$20 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, 5474 Hews Place, Taylorsville, UT, 84129-1416.

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, 5474 Hews Place, Taylorsville, UT, 84129-1416.

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, sometimes in 2250 or 105.

Membership: Club membership is open to anyone interested in amateur radio; a current license is not required. Dues are \$20 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 \$20 may obtain a membership without a *Microvolt* subscription for \$12. Send dues to the Club Secretary: Dick Keddington, KD7TDZ, 5474 Hews Place, Taylorsville, UT 84129-1416.

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.

UARC 2017 Board

President: Clint Turner, KA7OEI	801 566-4497
Executive VP: Lonnie Oaks, K7LO	801 255-1225
Vice Pres: Bruce Fereday, KF7OZK	801 883-9428
Secretary: Dick Keddington, KD7TDZ	801 274-9638
Treasurer: Chuck Johnson, WA7JOS	801 268-0153
<i>Microvolt</i> Editor: Gordon Smith, K7HFV	801 582-2438
Asst. <i>Microvolt</i> Editor: Rick Asper, AC7RA	801 865-1693
Program Chairperson: Morris Farmer, AD7SR	801 278-4966
Program Chairperson: Chuck DeWitt, W7DTO	435 882-9002
Imm. Past Pres: Linda Reeder, N7HVF	801 364-7006

Committee Chairpersons and Members

“Book Lady”: Brett Sutherland, N7KG	801 298-5399
Historian: Ron Speirs, K7RLS	801 904-3587
Field Day Chair: (To be determined)	
License Trustee: Brett Sutherland, N7KG	801 298-5399
Repeater 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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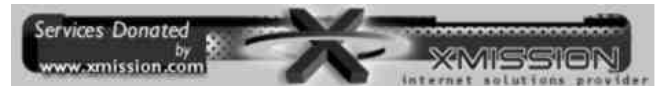
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IRLP Information

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://user.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



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June Meeting: All About Field Day

One of the most popular club events is coming up: UARC's entry in *Field Day*, the annual national operating event for portable and mobile operation. UARC will be setting up its usual station near Payson Lakes for the event, which officially runs from June 24 through June 25, although setup may begin as early as Thursday the 22nd and some folks may make it a family campout and spend the whole week.

Our June meeting will be all about Field Day — what we do, how to operate, where to go, what to bring, and a collection of photos from past Field Days showing some of the joys and sorrows of past years.

Field Day has become connected with Murphy's Law, the statement that if anything can possibly go wrong, it will. Bringing enough gear to set up a serious HF station in the middle of nowhere is not trivial. There have been some interesting omissions and interesting strategies to get around them. Come and get a chuckle about some of them.

Come and learn what it's all about. Once you see the presentation you may realize this is an event you can't miss. Then, again, you may remember why you make a point of missing it each year. In any case, come out and see what it's all about.

The meeting will take place at 7:30 P.M. on Thursday, June 8, in room 1250 (the “Stockham” classroom) of the Warnock Engineering Building.

UARC meetings are held on the second Thursday of each month at 7:30 P.M., in the Warnock Engineering Building on the University of Utah campus. To find room 1250, if you enter through the main (east) door, just go straight down the hall to the last classroom on the right. See the map at <http://user.xmission.com/~uarc/meetmap.html> for information on finding the building. (The room number varies through the year depending on availability.)

Of course, the meeting will include the “standard” meeting features:

- Availability of ARRL books from Brett or John, the “book ladies”
- 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. It is held at “The Village Inn,” 910 E. 400 South in Salt Lake City.

Latest News

Our Cover

Our cover this month features Jeff McGraff, N1SC, the featured speaker at our May UARC meeting. Jeff's presentation was on Weak Signal Digital Modes. For reference information see <http://tinyurl.com/n1sc-wsjtx>. Jeff was also Linda Reeder's choice for "Member of the Month." See a photo of Jeff in his shack on page 8.. (*Thanks to K7RLS for the cover photo.*)

Steak-Fry and Swap Meet: July 15

There's still one more UARC meeting left when you can sign up for the annual steak-fry. It's a chance to get away from the valley heat, chat with other hams, maybe swap some equipment, and have a nice steak dinner in the evergreen forest. This year's event will take place on Saturday, July 15, at our usual location: The Spruces Campground in Big Cottonwood Canyon. Price is \$15. If you don't sign up at the June meeting your next chances will be at Field Day and by mailing a check to the Secretary.

No Meeting in July or August

After the June 8 meeting there will be no more meetings in the Warnock Building until September. The steak-fry will serve as the July meeting, and we don't meet in August. The September meeting will feature Larry Jacobs, WA7ZBO, talking about "Off-Grid Ops."

"WIMU '17: June 16-18

After a number of years of non-existence, the Wyoming-Idaho-Montana-Utah (WIMU) Hamfest will be held this year at Garden City, Utah. John Jacobs, W7DBO, writes:

"This great traditional hamfest will be held in Bear Lake, Utah, June 16-18, 2017. Bear Lake is a great destination point for families to vacation while attending the hamfest. Activities will be held at the

Garden City Conference Center and Park. Activities include: Outdoor vendors, swap meet, women and youth/child activities, fox hunt, and special event station. Much more is planned for the hamfest."

For full hamfest details, see: <http://www.wimuhamfest.org/>.

Wanna Be Secretary?

Our wonderfully reliable club Secretary, Dick Keddington, KB7TDZ, has been having health problems that have made it difficult for him to continue in the office. As per the bylaws we will need to elect a replacement at the June meeting. We have had one volunteer so far. If you would like to consider running or know someone who would be a good candidate, let one of the officers know or be prepared to nominate at the meeting.

The Secretary's most important job is to keep the membership list up to date. He receives dues, makes bulk deposits into the club bank account, and creates the monthly lists used for *Microvolt* mailing. He is also the first choice to take minutes at Board meetings and for any business conducted at regular club meetings.

Educational Activity

Our Treasurer, Chuck Johnson, WA7JOS, has been our "Bonus Points Chairman" for our Field Day entry. One way to get bonus points is by conducting an "educational activity." Chuck says he is running out of good ideas for the kind of educational events to have that will work in an open field. Do you have a suggestion? What would you like to learn about? How repeaters work? What kind of antenna is best? How to solder a kit together? What kind of grounding your station needs? What do the specs of HF rigs mean? Learn to recognize a few Morse Code characters?

Help Chuck out! Tell him a topic on which *you* would like to be educated.

Field Day



Field Day is often UARC's most popular activity of the year. Everyone is invited to join us in the mountains as we attempt to make a few thousand radio contacts all over the country. We will join thousands of other clubs, groups, and individuals as we all try to set up stations in the great outdoors and see who can work the most other stations.

Among the things you can choose to do if you come will be:

- Work HF on a station with a Yagi on an 85-foot tower
- See how to set up several complete stations from scratch in a matter of hours
- Have a family campout in the mountains
- See what 6-meter operation is like

- Learn how to log stations coming in at about one a minute
- Make HF contacts even if you don't yet have a General class license
- Have a potluck dinner with other ham families
- Go fishing at the nearby Payson Lakes
- Engage in an educational activity (yet to be determined)
- Hike Mt. Loafer or Mt. Nebo

Now here are some details you would want to be aware of:

When: The actual operation (i.e. making contacts) begins on Saturday, June 24, at noon and runs continuously through noon on Sunday the 25th.

Setup, however, will begin as early as Thursday evening, June 22. Some families often come up as early as Monday and spend the whole week camping. You may come for any portion of the event. Come when you can; leave when you must.

Where: The location is an open field just south of Payson Lakes on the Mt. Nebo Scenic Loop road. The club will provide portable toilets, but other than that there are no amenities provided. You will need to bring whatever is necessary for you to be comfortable for the period you will be there. This may include food, water, and shelter. If you are staying through the evening, even if not overnight, you will want to have a warm coat.

There is also a Forest Service campground, just a half-mile away. For a fee there are campsites available with water, toilets, and picnic tables.

Potluck Dinner: On Saturday evening we will have a potluck dinner. The club will supply a main course. Bring a dish to share.

How to get there: Here is how to reach UARC's site:

1. 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. Be careful to observe the speed limit

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 from the canyon mouth:
 - 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.

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.

According to Google Earth, the coordinates are: 39° 55' 31.11" N., 111° 37' 53.06" W.

What to Bring:

- Food
- A dish to share for the potluck dinner
- Water
- Shelter
- Warm clothes (It gets chilly at 8000 feet.)
- Tools that could be used to assemble antennas and work on electronic gear.
- Your favorite key, paddles, and/or keyer (if you want to work CW)

Hope to see you there!

Scotts' Repeater Problem Fixed

During the week of May 1, people started reporting a weak signal from the Scotts' Hill half of the 146.62 synchronous dual repeater system. Keith Stebbings, KE1THR, who works as a ski instructor at the Brighton resort, made three ski

trips to the site to diagnose the problem, bring the ailing item out, and return it to service when repaired. Thanks, Keith! More information is at: <http://user.xmission.com/~uarc/rptrstat.html>.

License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone
06/03/17	(Sat.)	Salt Lake City ^{1,4}	Gordon Smith, K7HFV	(801) 582-2438
06/07/17	(Wed.)	Ogden	Rick Morrison, W7RIK	(801) 791-9364
06/07/17	(Wed.)	Clearfield	Mike Youngs, KK7VZ	(801) 573-3922
06/10/17	(Sat.)	Hurricane ²	Gary O. Zabriskie, N7ARE	N/A
06/21/17	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
06/21/17	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
06/21/17	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
06/21/17	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
06/26/17	(Mon.)	Taylorsville ^{1,3}	Garth Wiscombe, W7PS	(801) 558-5936
07/19/17	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
07/19/17	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
07/24/17	(Mon.)	Taylorsville ^{1,3}	Garth Wiscombe, W7PS	(801) 558-5936

¹Preregistration required. Check with the contact person before the test session.

²More information at <http://www.dixieham.org/meetings.html>

³New location is the Taylorsville City Hall, 2600 Taylorsville Blvd, Room 110

⁴More information at <http://www.utaharc.org/Exams/>

More details at <http://user.xmission.com/~uarc/testinfo.html>.

Member of the Month

Jeff McGrath, N1SC

By Linda Reeder, N7HVF

This month we are featuring Jeff McGrath, N1SC. It was photography that got Jeff interested in amateur radio. Jeff does lots of traveling to take pictures and one of the of the places he visited was the Grand Staircase National Monument in Southern Utah. When traveling in the rugged terrain in the desert Jeff needed to figure out a way to contact someone if needed. CB radios would never work. Satellite phones would work, but amateur radio looked to be a lot more fun. Jeff got the Technician book and studied on his own, then took a class from Steve Whitehead, NV7V. Jeff obtained his Technician class license December 31, 2013.

Jeff upgraded to General on June 4, 2015 and went on to the Extra class license March 4, 2016. Jeff's first call sign was KG7HSN. The next step was a vanity call. "N1SC" came through on April first, 2016. Jeff said no, it is not an April fools joke. Jeff wanted a short call sign because this would make it easier to get through the pileups on HF. There wasn't anything available in the seventh call area so he took what he could get.

Jeff loves the low band radio, rag-chewing, and contesting. He is working hard on getting lots of awards. Jeff loves building his own antennas.

Jeff gets on the Lehi Preparedness Net. They work with the emergency response communications group.

Jeff is very active in digital modes. He made a presentation about them at the 2016 Great Salt Lake Hamfest and at the Digital Communications Conference. Jeff was our guest speaker at the May UARC meeting where he did a great job. He gave instructions to the audience on how to get the proper software for digital communications. (Digital communications is communicating between two computers on the amateur radio bands.)

Jeff is a member of UARC, Utah VHF Society, 76ers, Utah RACES, the Utah Valley Amateur Radio Club (UVARC) and a lifetime member of ARRL. He is also the Activities Coordinator for UVARC which includes being in charge of Field Day for this year. He says they haven't yet decided on a location. Last year Jeff attended Field Day with UVARC and the year before that with UARC at Payson Lakes.

Jeff is a computer programmer. He works for a company in Draper, Utah, which makes

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networking equipment and he has been there for over a year.. He also does photography work. He has a studio located in Lindon, Utah. Jeff did photojournalism for the University of Utah's *Daily Utah Chronicle* for several years, and has picked up stringer jobs since then. He shoots weddings, portraits, commercial art, landscape, sports, etc.

Jeff and his wife, Kim, have three children: two boys and one girl. Their ten year old son, Isaac, is working on getting his amateur radio license.

Jeff, welcome to the hobby. We appreciate your contributions to amateur radio.



Jeff McGrath, N1SC, at home