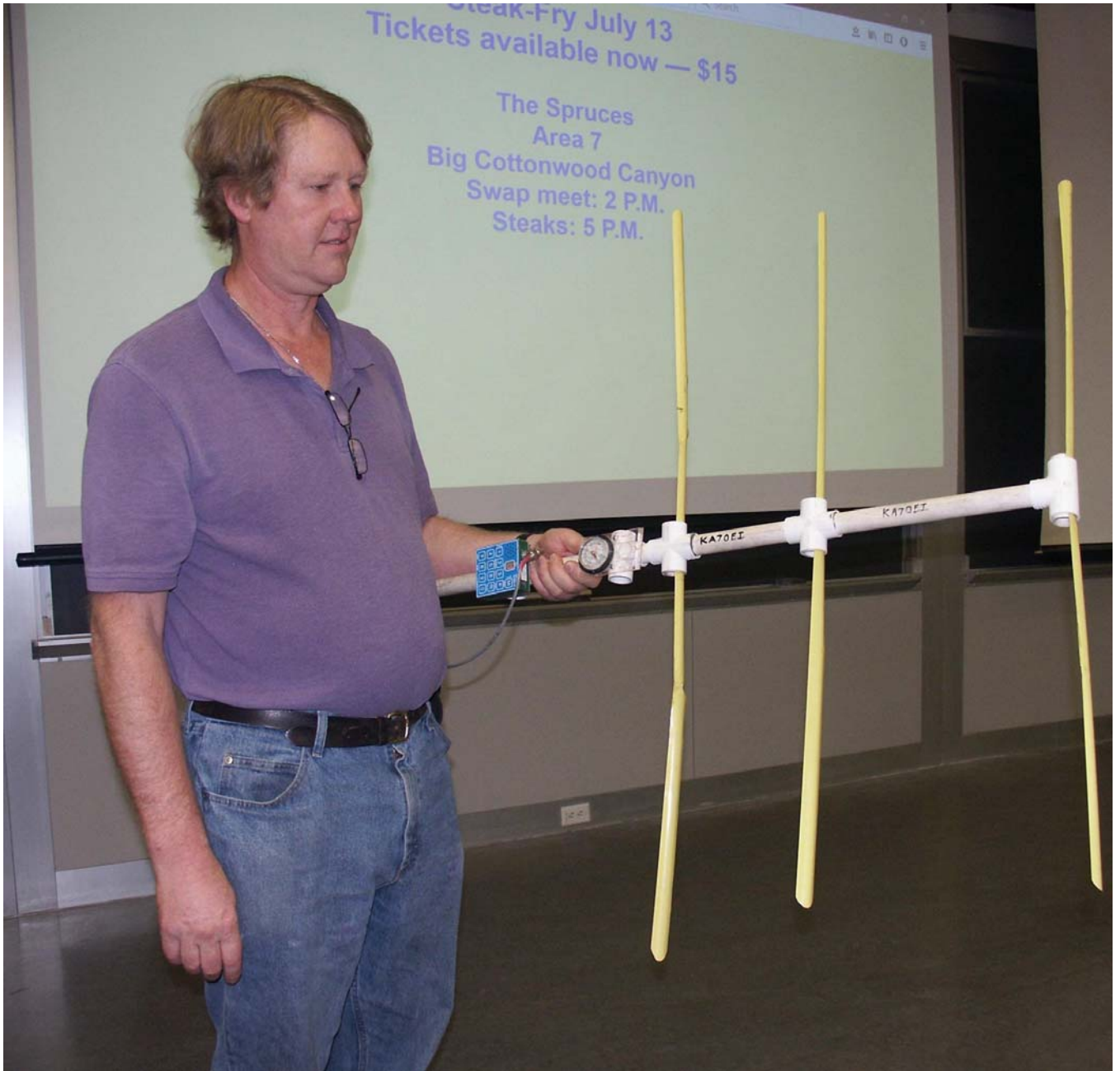


The *Microvolt*

June, 2019



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 Tom Kamlowksy, 4137 Clover Lane, Salt Lake City, UT, 84124-2711.

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: Tom Kamlowksy, 4137 Clover Lane, Salt Lake City, UT, 84124-2711.

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: Tom Kamlowksy, WA7ZRG, 4137 Clover Lane, Salt Lake City, UT 84124-2711. Let the Secretary know if you prefer the electronic edition of *The Microvolt* instead of the printed version.

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 2018 Board

President: Morris Farmer, AD7SR	801 278-4966
Executive VP: Lonnie Oaks, K7LO	801 255-1225
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Program Chairperson: Laird Severinsen, WB7TGP	801 255-0834
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Imm. Past President: Clint Turner, KA7OEI	801 566-4497

Committee Chairpersons and Members

Bookseller: Rick Gregory ,KG7GOW	801 582-7783
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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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



The Microvolt

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June Meeting: Propagation

Which band should you try in order to work France in the afternoon? Is the answer today the same as it was yesterday? How much power will it take? Knowing how to find the answer requires some knowledge of HF propagation and the tools and information sources available. And what do those numbers such as “solar flux,” “K index,” and “A index” mean?

At the June 13 UARC meeting, Jed Petrovich, AD7KG, will be telling us all about understanding HF propagation and the different effects of day versus night, summer versus winter, and sunspot maximum versus sunspot minimum.

Jed will also show us some of the computer tools available to demystify the sometimes erratic behavior of our ionosphere and how they can help us get more out of our HF operation.

The meeting will include some information about UARC’s entry in the national Field Day event (which isn’t officially a contest, but has some suspiciously similar characteristics to one). Field Day is coming up on June 22 and 23 and we hope many of our members can come and operate. We will go over how to find the site and some pitfalls to avoid when logging section names.

The June meeting will also be the last opportunity at a regular meeting to make reservations for the annual UARC steak-fry, to be held Saturday, July 13. Cost this year is \$15 per person.

The meeting will take place Thursday, June 13th at 7:30 P.M. Location is the Warnock Engineering Building on the University of Utah campus, room 1230.

UARC meetings are held on the second Thursday of each month. The room number varies with availability. See <http://user.xmission.com/~uarc/meetmap.html> for a map and information on finding the building.

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

- Availability of ARRL books from Rick, the book seller
- 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 is from the May meeting's program about direction finding. Clint Turner, KA7OEI, displays a tape-measure Yagi, a full-sized beam for two meters that can be stuffed rapidly into a car without worry about bending elements. Clint discussed several schemes for locating transmitters and showed some of the equipment required.

(Thanks to K7RLS for the photo.)

NM7P Re-elected as Section Manager

On May 21, ARRL Headquarters announced the outcome of the election of Utah Section Manager, the person who oversees Utah's participation in the National Traffic System (NTS) and the Amateur Radio Emergency Service (ARES) as well as many other ARRL appointments. Mel Parkes, NM7P, retained the SM position for another two years.

Statistically, 39% of Utah ARRL members cast ballots. Mel received 481 votes and Pat Malan, N7PAT, received 233.

Steak-Fry July 13

UARC's annual Steak-Fry and Swap Meet will take place on Saturday, July 13, in lieu of a July meeting. It will be held in the usual place, The Spruces, in Big Cottonwood Canyon and will cost \$15 per person. Everyone is encouraged to come, but signing up in advance is necessary so that your Board will know how much food to buy. A good opportunity to get your reservation in will be in person at the June meeting. Another opportunity will likely be at Field Day where our club Secretary will be available.

If neither of those work out and you have a PayPal account (or wouldn't mind opening one — they're free) you can make your reservation with just a few key strokes. Just send a multiple of \$15 to "UARC" and you're done. Our Secretary will recognize such multiples as Steak-Fry reservations.

If the PayPal approach looks good to you, there's a bit of a shortcut that works. Go to:

<http://www.paypal.me/uarc/15> and follow instructions from there. If you need more than one steak for your family, use the appropriate multiple of 15 at the end.

Improvements at Leamington

UARC's remote HF station near Leamington, Utah, may soon have some new antennas. One deficiency of the system has been that the current antenna does not do very well on the 160-meter band. Ex-utahan Mike Mladejovsky, WA7ARK, has been doing some modeling to find something that would perform well and would also fit in the available space. Past UARC President, Clint Turner, KA7OEI, has been looking at possible wire antennas that might do well on several bands. After some experimentation one or both of these options may be put into service in the next few weeks.

Use of the station is open to any UARC member having at least a General license and Internet access.

A remote station of this type is particularly helpful for those who live in an area where they cannot put up effective HF antennas at their homes.

For information about how to register as a user and how to operate the station go to:

<http://user.xmission.com/~uarc/HFRemote.html>.

Field Day

It's coming up on June 22 and 23: *Field Day*, the most popular operating event in all of amateur radio! UARC will be setting up a portable station with multiple transmitters available to anyone who would like to operate, and operation will go on for a full 24 hours. It's a chance to combine camping with amateur radio, a chance to operate a station with a better-than average antenna, and, if you're a Technician class operator, a chance to try out HF and see what it's like. UARC will be entering from a site near Payson Lakes if it is accessible.

What is it? Field Day is a nationwide event in which amateur operators are encouraged to set up portable stations and see how many other stations they can work in a 24-hour period. The ability to quickly set up a station that can communicate with other stations all across the country is valuable in an emergency when telephone and internet connections may not be working. There have been a number of situations in past years when communication lines were down due to earthquake, tornado, hurricane, or fire, when amateur radio was the only means of communications that could be used to summon help. Operating during Field Day is a great way to develop necessary skills.

For the complete description and rules of the event see <http://www.arrl.org/field-day>. If you are an ARRL member, check the Field Day articles starting on page 74 of *QST* magazine.

When is it? The actual event (i.e. making contacts) starts at noon on Saturday, June 22. However we will begin setting up tents, antennas, and equipment the evening of Thursday, June 20. Come when you can and leave when you must.

Where is it? If we don't run into problems because of road closures or fire damage, we will be operating from a clearing on the Nebo Scenic

Loop Road, just a half mile south of the Payson Lakes campground entrance (not the picnic area).

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 "Peteeetneet 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: Our site is nothing more than an open field, so you will need to bring everything you will need for eating, sleeping, and being comfortable during your stay. This might include: food, water, shelter, a chair, a warm jacket, and your electronic tool kit.

On Saturday evening there will be a potluck dinner. The club will supply a main dish. You are encouraged to bring a side dish or desert to share.

Can I Operate? With a need to keep three stations on the air for 24 hours, there should be a chance for everyone to try making contacts. Even if you are a Technician or even hold no license at all, you can operate the station as long as there is a higher-class licensee in the tent watching over the operation. There should be plenty available. If you've never worked HF or a contest before, this is a great opportunity to find out what it is like.

Why should I come? People find Field Day enjoyable for a variety of reasons. There's a chance to combine a campout with amateur radio, a chance to get away from the valley's summer heat, a chance to see an HF station set up from scratch, a chance to operate with a good HF antenna at 80 feet in the air, and the chance to meet, in person, folks you have worked on the air.

One of the best reasons, though, is the fact that Field Day is a chance to hone skills that could be very important for emergency communication. These include being able to copy and record information accurately on the first hearing, being able to manage a pileup of stations calling you, proficiency in multiple modes (e.g, voice, CW, digital), and the ability to operate in long shifts.

License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone
05/15/19	(Wed.)	Provo ⁵	Steve Whitehead, NV7V	(801) 465-3983
05/15/19	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
05/20/19	(Mon.)	Taylorsville ^{3,5}	Garth Wiscombe, W7PS	(801) 558-5936
06/01/19	(Sat.)	Salt Lake City ^{1,4}	Gordon Smith, K7HFV	(801) 582-2438
06/05/19	(Wed.)	Ogden	Rick Morrison, W7RIK	(801) 791-9364
06/05/19	(Wed.)	Clearfield	Joe Girauda, N7JEH	(775) 777-4798
06/08/19	(Sat.)	Hurricane ²	Gary O. Zabriskie, N7ARE	N/A
06/19/19	(Wed.)	Provo ⁵	Steve Whitehead, NV7V	(801) 465-3983
06/19/19	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
06/24/19	(Mon.)	Taylorsville ^{3,5}	Garth Wiscombe, W7PS	(801) 558-5936
07/01/19	(Mon.)	Tooele	Roland Smith, K7OJL	(435) 849-1946
07/17/19	(Wed.)	Provo ⁵	Steve Whitehead, NV7V	(801) 465-3983
07/17/19	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
07/29/19	(Mon.)	Taylorsville ^{3,5}	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/>

⁵Preregister by going to <http://www.hamstudy.org/sessions/> and finding the session date.

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

Materials in the UARC “Library”

In our April issue, our book seller, Rick Gregory, KG7GOW, told about plans for a UARC “lending library.” UARC members are welcome to take various items home for 30 days. Now the library

has some actual contributed materials. Below is the list that Greg sent us. We will try to keep a current list on the UARC web site.

Book Title	Pub. Year
200 Meters & Down: the story of amateur radio	1936
A History of QST, Vol. 1: amateur radio technology, 1915-2013	2013
A History of QST, Vol. 2: advertising, 1915-2013	2013
ARRL Digital Technology for Emergency Communications course [CD-ROM]	2008
ARRL RFI Book: practical cures for radio frequency interference, 3rd Ed.	2010
ComTrain's Tribute to Safety: tower climbing safety & rescue, 4th Ed.	1977
Ham Radio for the New Ham: what to do the minute you get your ... license	2019
Introduction to Radio Frequency Design	1982
Microwave Know How for the Radio Amateur	2010
Microwave Projects 2	2005
Power Supply Handbook	2006
PR-101: ARRL public relations [CD-ROM *]	2009
Practical Radio Frequency Test & Measurement: a technician's handbook	2002
The Amateur Radio Mobile Handbook	2001
The ARRL Antenna Compendium, Vol. 2	1989
The ARRL Goes to Washington [CD-ROM (10 minute video)]	2005
The ARRL Handbook for Radio Communications - 2006 – 83rd Ed.	2005
The ARRL Operating Manual for Radio Amateurs, 8th Ed.	2006
Understanding Your Antenna Analyzer	2013

ARRL Invites Volunteer Monitor Applicants

ARRL is now accepting applications from those interested in joining the new “Volunteer Monitor” program, replacing the old “Official Observer” program. These folks will participate in friendly

notifications as well as evidence gathering for rules violations. ARRL membership is required. Those interested should send email to <mailto:volunteer-monitor@arrl.org>.

Member of the Month

Timothy Very Jones, KJ7ESZ

By Linda Reeder, N7HVF

This month we are featuring Timothy Very Jones, KJ7ESZ. Timothy is a brand new ham radio operator, having just received his Technician license in March of this year. Timothy took the Technician class given by Morris Farmer, AD7SR, and passed the test at the end of the class. Timothy is now taking Morris' General class and hopes to have his General license at the end of the class.

Timothy is looking forward to learning about amateur radio. Right now he is listening to conversations on the air. He is a member of UARC and really would like to come to the meetings but has other obligations on Thursdays. He hopes to get that changed in June or July.

Timothy was introduced to amateur radio when he was a teenager. At first his friend, Dan, got him interested in CB radio. Then Dan introduced Timothy to amateur radio when he was in junior high. Timothy was having trouble with the Morse Code. It was like learning another language. He said he didn't need another language, so amateur radio was put on the back burner for awhile. Years later Timothy got involved in family radio and had a GMRS transceiver. Finally, Timothy got into amateur radio. Now that he is in amateur radio he wants to get involved in emergency communications. He is going to be setting some of his equipment up for emergency services.

Timothy grew up in auto mechanics, where he worked for 10 years. Timothy now works for Rocky Mountain Power at the call center and has worked there for five years. Timothy and his wife,

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Jenny, have nine children: five boys and four girls. His wife, Jenny, and the children are not interested in amateur radio but he hopes some day they might be.

Timothy enjoys other hobbies including going camping with his family and trail bike riding.

Timothy, welcome to amateur radio. We wish you the best in obtaining your General license.



Timothy Jones, KJ7ESZ