

# The *Microvolt*

February 2020



## Prologue

**Publication:** *The Microvolt* (USPS 075-430) is the official publication of the Utah Amateur Radio Club, Incorporated, 632 S. University Street, Salt Lake City, UT 84102-3213. 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 Kamlowsky, 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 Kamlowsky, 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 Kamlowsky, 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 2020 Board

President: Morris Farmer, AD7SR	801 278-4966
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### 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: 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



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# The Microvolt

The Official Publication of the Utah Amateur Radio Club, Salt Lake City, Utah  
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## February Meeting: HF Propagation

Which bands are open right now? Which would be the best choice to Europe? Will things get a lot better when we get into the new sunspot cycle? These are some of the questions that folks chasing DX and miscellaneous awards frequently ask. When it comes to propagation, we live in a time when there are lots of information sources on the internet plus some useful tools we can put in our computers.

Our February UARC meeting, to be held Thursday, February 13, will feature Jed Petrovich, AD7KG, a serious DX'er and one who has explored the tools available for understanding and predicting HF propagation. Jed gave us an interesting presentation two years ago and may pick up where he left off.

The meeting will take place Thursday, February 13, at 7:30 P.M., in room 1230 of the Warnock Engineering Building on the University of Utah campus. Parking is available across the road to the east of the building. Do not park in the spaces immediately east of the building unless you have a handicapped pass.

Except for July and August, UARC meetings are held on the second Thursday of each month at 7:30 P.M. See the <http://user.xmission.com/~uarc/meetmap.html> for information on finding the building. The parking lots you may use are outlined in green. The room number varies depending on availability.

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 features Mickey Applebaum, KE7NZA, who presented our program at the January UARC meeting. The topic of the meeting was amateur radio's participation in providing communications for public service events such as parades and races. Such participation is great experience to prepare operators for emergency communications.

Those interested in helping with these events should check out the website at:  
<http://www.utahsag.org/>.

*(Thanks to Ron Speirs, K7RLS, for the photo.)*

### **HF Remote Station Available**

We should remind everyone that UARC sponsors a remotely-controlled HF station in a canyon near the town of Leamington, Utah. All UARC members with an appropriate class of operator's license may use the station if desired. This can be particularly useful for those whose antenna possibilities are limited by zoning regulations, deed covenants, or unkind home owners' associations.

It had been worried a few months ago that a fire in the area might have done antenna damage. It happens that the fire had burnt through a rope holding one end of the wire that is the new 160-meter antenna (known as "Antenna #2"), but that was easily repaired.

If you would like to use this remote station from your computer or other device, you must first register with Morris Farmer, AD7SR, UARC President. Full details on how to do this and how to operate the station are available on the UARC web site at:  
<http://user.xmission.com/~uarc/HFRemote.html>.

Our thanks to Gary Crum, KK7DV, who has organized most of the work to establish and maintain the station.

### **VHF Society Swap Meet**

The Utah VHF Society will hold its annual business meeting and swap meet on Saturday, February 22, at 9 A.M. This is typically the largest swap meet in the state for amateur radio equipment.

The Utah VHF Society provides frequency coordination for repeaters in Utah and helps support many repeaters, particularly in parts of the state with small populations.

This year's event will be held in the Davis County Fairgrounds in Farmington, building number 2. This is the building that most of the recent VHF Society meetings have been held, last year being an exception.

Entry is free to VHF Society members. For more information see the Society's web site at <http://www.utahvhfs.org>.

### **Fourth Annual Digital Communications Conference**

The Fourth Annual Digital Communications Conference will take place on Saturday, February 15, from 9 A.M. to 5:30 P.M. at Larry Miller Campus of the Salt Lake Community College in Sandy.

Topics will include digital communication via radio by voice, text, and images. Presenters include folks from various parts of the state. Cost is \$15 in advance or \$20 at the door.

For full information, see the web site at:  
<http://utah-dcc.org/>.

## Web SDR Back in Service

The “Northern Utah Web SDR” came back into full service on internet on January 11 (or, more accurately, *very* early on the morning of the 12<sup>th</sup>) after an outage of a week or so due to Internet connectivity problems.

For those not familiar with the SDR, you should really visit and explore it. “SDR” stands for “Software Defined Radio” meaning a way to extract intelligence from radio transmissions using digital methods instead of the traditional analog filter and demodulator methods. Multiple computers with multiple programs running on each one make it possible for different users to tune in and listen to different frequencies at the same time.

Anyone can connect to the site using Internet and explore a remarkably large portion of the radio spectrum as heard at a low-noise site using a large (over 90 feet high) antenna with gain. Frequency coverage includes all the amateur bands from the new 2200-meter band through two meters, plus the AM broadcast band and common short-wave broadcast bands. It can accommodate as many as 50 users at a time, all listening to different frequencies of their choosing.

The site can be an extra receiver for QSOs on HF. When fading is taking place on your local receiver the signal may be simultaneously getting stronger at the SDR site, which is near Corinne, Utah. You might also be able to listen in on some northern Utah repeaters that aren’t normally heard near the Salt Lake Valley. And if you’ve never explored HF at all and are wondering if it’s worth studying for your General license, you can check out what’s going on in the HF world without having to buy even a receiver.

The SDR owes its existence largely to our own Clint Turner, KA7OEI. It relies on donations to stay in operation.

To check it out, go to <https://www.sdrutah.org/>. You will find not only a quick path to your favorite frequency, but also comprehensive technical descriptions of how it works.

## Quartzfest a Success

Quartzfest 2020 closed Saturday, January 25, with attendance of over 800 hams camped in the Arizona desert. A variety of training sessions covered 40 topics during the week with additional special presentations in the early evening each day. Off-road adventures explored the desert. ARRL Division officers and Section Managers provided updates on current issues related to the hobby. Weather for the week was perfect with sun and temperatures between 40 to low 70’s.

Utah was well represented. A Northern Utah SDR representative attended and hams had great comments related to this remote radio web site. Dennis Nelson, N7FOD, was the winner of a Kenwood TH-D74A during the closing ceremonies.

Attending with Tom Kamlowsky, WA7ZRG, we find this to be a fun event. Join us and plan to attend Quartzfest 2021, January 17-23, which will celebrate 25 years. More info at: <http://www.quartzfest.org/>.

—Laird Severinsen, WB7TGP

## New “Social” Net

The Salt Lake Crossroads Amateur Radio Club has announced a new net which meets every weeknight at 7 P.M. Its purpose is listed as “Getting help with all things amateur radio and general socializing with other hams.” All are welcome.

The net is held on the K7XRD repeater at 448.525 MHz requiring a 100-Hz PL tone. Offset is the standard negative 5 MHz. For more information see <https://slcarc.org/>.

## **ARRL Bulletin 3 (ARLB003): 3 GHz Band (including MESH) in Jeopardy**

From ARRL Headquarters  
Newington CT January 24, 2020  
To all radio Amateurs

At its January meeting, the ARRL Board of Directors instructed the League's FCC counsel to prepare a strong response to protect amateur access to spectrum in the 3 GHz range. In its Notice of Proposed Rulemaking (NPRM) in WT Docket 19-348, the FCC proposed to relocate all non-federal operations, including amateur uses, to spectrum outside the 3.3 - 3.55 GHz band. The Commission anticipates auctioning this spectrum to expand commercial use of 5G cellular and wireless broadband services, if agreement can be reached on relocation of "or sharing with" the federal incumbents that operate in the same band. Publication of the NPRM in the Federal Register on January 22 established deadlines of February 21 for comments and March 23 for reply comments.

The FCC has requested comment on the uses radio amateurs make of the spectrum and appropriate relocation options. Complicating matters is the fact that radio amateurs must consider the possibility that the immediately adjacent 3.1 - 3.3 GHz band is included in the spectrum that Congress has identified for similar study. FCC Commissioner Michael O'Rielly, in a December statement, referenced the fact that the lower band may also be considered for non-federal reallocation, potentially limiting relocation possibilities.

Amateurs make substantial use of the 3.3 - 3.5 GHz band that would be hard to replicate elsewhere, and they have filed more than 150 comments before the designated comment period even began. Among users looking at options are those who use this spectrum for Earth-Moon-Earth (moonbounce) communication, mesh networks, experiments with communication over long distances, radiosport, and

amateur television. A portion of the band also is designated for use by amateur satellites in ITU Regions 2 and 3 (the Americas and Asia/Pacific).

A report is due by March 23 from the National Telecommunications and Information Administration (NTIA) evaluating the feasibility of having federal users share all or part of the 3.1 - 3.55 GHz band with commercial wireless services. This report is required by the Making Opportunities for Broadband Investment and Limiting Excessive and Needless Obstacles to Wireless (MOBILE NOW) Act. The results of the NTIA report will impact how much spectrum ultimately may be re-allocated for auction to wireless providers.

ARRL urges amateurs who comment to inform the FCC about the uses they make of the 3 GHz spectrum. Short comments and longer statements may be filed electronically. Visit the FCC "How to Comment on FCC Proceedings" page for more information. Commenters should reference WT Docket 19-348.

### **Check Out H.B.101**

The Utah Legislature is considering a bill which would outlaw communicating on a hand-held device while driving and could be interpreted to prohibit amateur mobile operation using H-T's. Check out: <https://le.utah.gov/~2020/bills/static/HB0101.html>.

You may want to contact your representative and encourage him or her to push for an exception for licensed amateur radio operators. To find your representative go to: <https://le.utah.gov/GIS/findDistrict.jsp>.

You can make your comments on line at: <https://house.utah.gov/contact/>.

To help with the group effort, contact Jay Brummett, W7WJB, at <mailto:W7WJB@arrl.net>.

For help in finding arguments you might use, read through an ARRL Letter item from 2009 at: <http://www.arrl.org/arrlletter?issue=2009-02-06>.

## License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone
2/01/20	(Sat.)	Salt Lake City <sup>1,4</sup>	Gordon Smith, K7HFV	(801) 582-2438
2/04/20	(Tue.)	Eagle Mountain	David A. Becar, KI6OSS	(909) 379-8015
2/08/20	(Sat.)	Hurricane <sup>2</sup>	Gary O. Zabriskie, N7ARE	N/A
2/19/20	(Wed.)	Provo <sup>5</sup>	Steve Whitehead, NV7V	(801) 465-3983
2/19/20	(Wed.)	St. George <sup>2</sup>	Gary O. Zabriskie, N7ARE	N/A
2/23/20	(Mon.)	Taylorsville <sup>3,5</sup>	Garth Wiscombe, W7PS	(801) 558-5936
3/04/20	(Wed.)	Clearfield	Joe Giraud, N7JEH	(775) 777-4798
3/18/20	(Wed.)	Provo <sup>5</sup>	Steve Whitehead, NV7V	(801) 465-3983
3/18/20	(Wed.)	St. George <sup>2</sup>	Gary O. Zabriskie, N7ARE	N/A
3/30/20	(Mon.)	Taylorsville <sup>3,5</sup>	Garth Wiscombe, W7PS	(801) 558-5936

<sup>1</sup>Preregistration required. Check with the contact person before the test session.

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

<sup>3</sup>New location is the Taylorsville City Hall, 2600 Taylorsville Blvd, Room 110

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

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

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

## Financial Report for 2019

1-1-2019 through 12-31-2019

Income		Expenditures	
Category	Amount	Category	Amount
ARRL Dues	876.00	Administrative	51.07
Book Sales	3,090.95	ARRL Memberships	805.00
Donation	106.00	Books	3,356.56
Dues	4,872.00	Capital Equipment	218.50
Future Dues	356.00	Field Day	870.65
Interest	120.81	Insurance	200.00
Steak-Fry Income	675.00	Meeting Expense	361.04
		<i>The Microvolt</i>	2,199.28
		PayPal Fees	133.55
		Repeater	690.60
		Sales Tax	148.26
		Square Inc Fees	41.02
		Steak-Fry Expenses	727.94
<b>Total Income</b>	<b>10,096.76</b>	<b>Total Expenses</b>	<b>9,803.47</b>
<b>Net Income</b>		<b>293.29</b>	

Submitted by Chuck Johnson, WA7JOS, UARC Treasurer

## Member of the Month

### Kelly Weldon, KD7IMZ

By Linda Reeder, N7HVF

This month we are featuring Kelly Weldon, KD7IMZ. Kelly has been interested in amateur radio since junior high school. He took the test but he just couldn't pass that Morse Code element, so amateur radio got put on the back burner for many years

Kelly attended Salt Lake Community College. Right after his graduation, the College offered him a job in the television division and he worked there for 40 years.

When Kelly first got the job, the college wanted their employees to get their ham radio licenses for emergency communications. To that end they offered a ham radio Technician class. Kelly finally obtained his license on April Fools Day in the year 2000. Kelly's call sign is KD7IMZ.

In 2011 Kelly's wife, Doris, received her Technician license with the call KF7SIP. Kelly was quite excited because now they could have fun in all kinds of activities together. Kelly enjoys participating in public service events. Together, Kelly and Doris participated in the Salt lake Deseret Marathon, Days of 47 Parade, and several bike races. Kelly and Doris have two daughters but they couldn't get them interested in amateur radio.

Kelly is very active in the Amateur Radio Emergency Service (ARES). He served for several years as Emergency Coordinator (EC) for Salt Lake County. Currently he works at the state level coordinating communications help to non-government organizations. Those include groups such as American Red Cross, Salvation Army, and several different religious groups. The ARES organization operates at state, county, and city levels.

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Kelly is a member of VOAD, the National Association of Voluntary Organizations Active in Disaster. Kelly is also a member of UARC. He is active on the Intermountain Intertie where one day he checked in from Las Vegas. Kelly has attended almost all of the Field Day sites in Utah. He has an Icom 207, a dual-band mobile rig, plus several other Icoms and Kenwoods. Another hobby Kelly enjoys is photography

Kelly we appreciate your contributions to amateur radio.



Kelly Weldon, KD7IMZ, at the Days of '47 Parade