

# The *Microvolt*

September 2020



Field Day this year is June 27 – 28

In recent years UARC Field Day activities have been at Payson Lakes, Utah



## 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



# The Microvolt

The Official Publication of the Utah Amateur Radio Club, Salt Lake City, Utah  
Volume 63, Issue 7, July 2020

## Latest News

### September (on-line) Meeting: Narrow Band Video

Our old analog television scheme occupied a full six megahertz (50% more than the entire two-meter band) to send a single channel of video. Our September meeting will tell about schemes available to hams now where video can occupy no more space than a single voice channel.

Our presenter will be working from his home in Melbourne, Australia. He is Chris Long, VK3AML. You may remember back in January of 2008 when Chris was visiting us in Salt Lake City and gave a very interesting talk on sending voice over light beams.

Chris has experimented with various methods of narrow-band (motion picture) TV, slow scan television, and radio fax over HF and VHF radio for the past 48 years. He was a founding member of the British Narrow Band TV (NBTV) Association with the late Doug Pitt in 1973. The NBTV association still publishes a quarterly magazine.

Chris' talk will discuss and demonstrate the problems of squeezing video bandwidth by a factor of two thousand, from the standard analog TV requirement of 6 MHz per channel, to a voice bandwidth legal for HF radio, from 2.8 kHz to 8 kHz wide. In spite of popular belief, a head-and-shoulders thumbnail of the person you're speaking to, in motion, can now be sent via HF radio. Software developed by the Sydney experimenter Gary Millard for analog NBTV, and by Con, ZL2AFP, for OFDM NBTV makes this possible. The wonder is that so few have tried it.

Alternatively, using "Easypal" digital file audio streaming freeware, high definition, noise-free, color still pictures, diagrams, text, sound files and even animated gifs can now also be transmitted on HF radio. Above 29.5 MHz, faster 9600-baud file transfer by radio also shows promise for heavily compressed video streaming with systems like the old dialup RealAudio/Video system.

Software defined transceivers with their flexible bandwidth and high audio demodulation quality can generally transmit pictures better and faster than old hardware-based transceivers. A webcam and suitable software can be used as the signal source, either for NBTV or SSTV. All it needs is a suitable computer-to-transmitter audio interface.

Chris will present pictures and video clips produced by several types of equipment and software that he's used over the last five decades, with the hope that more operators will try these attempts at diversifying from standard analogue SSTV methods.

Please join us for the YouTube virtual meeting on September 10th at 7:30PM. A link to the UARC YouTube channel is provided below. If you haven't done so already, when visiting the channel please be sure to look for and press the "Subscribe" button. Go to:

<https://www.youtube.com/c/UtahAmateurRadioClub>.

The September 10 virtual meeting will begin at the normal UARC meeting time of 7:30 P.M. We will try to have the stream going by 7 P.M. to work out any technical problems.

If you would like to be able to *interact* (e.g. ask questions of the presenter), read the instructions at [utaharc.org/youtube](http://utaharc.org/youtube).

## **Our Cover**

Our cover image this month is taken from our June on-line meeting. Past President, Clint Turner, KA7OEI, and Secretary, Tom Kamlowsky, WA7ZRG, put together a program about what to do about the annual ARRL Field Day operating event given that the club would not put on its annual get-together near Payson Lakes. If you missed it, or if you would just like to see that an on-line meeting is like, you can still view it at:

<https://www.youtube.com/watch?v=lqZ7ZKFajDQ&t=875s>. (That's one of the advantages of on-line meetings: if you miss one you can catch up at your convenience.)

## **Getting Ready for Homebrew Night**

In keeping with long tradition, UARC's annual "Homebrew Night," a chance for hams to show off their latest home-built equipment, will take place as the program for our October meeting, to be held Thursday, October 8, on-line. So be sure not only to get your latest project working by that night, but also to figure out how to display it using photos, diagrams, and/or sound recording. Homebrew is a wonderful tradition dating all the way to the beginnings of amateur radio.

The club is asking everyone planning to enter one or more homebrew items to have at least an outline of their presentations ready a week prior to the event. This will allow time to get acquainted with the software used and work out any bugs that might appear. The club officers will be able to get together with you for a "dry run" so you can get the feel of the system. It is assumed that everyone will have at least one photo of his entry and it is important to be sure it can be displayed easily at the right time. Other images of views of the item from other angles, schematics, articles showing the design or acting as a starting inspiration, are all welcome if

they help communicate details about the device and how it performs.

One great advantage of the on-line method is that if your project is an antenna, you can show it in place even if it's 75 feet in the air.

## **Still Looking for Meeting Subjects**

We are still in need of programs for our club meetings this fall. If you have a presentation you would like to make, know someone who is a good presenter, or just have a topic that you would like to learn more about, let our Program Chair Persons know. Maybe you'd like to know more about digital voice modes, what HF is really like, what it takes to do moon-bounce, or how to get the DXCC award. Let us know your interests!

Some potential presenters have balked on coming when it became apparent that the meetings would have to be the on-line variety. The fact is that in some ways it's easier than a live presentation. You can do it all in a familiar environment and won't have to pack up any equipment needed and carry it to the meeting site. No commuting time is required and for the audience, there are no bad seats.

## **New Section Emergency Coordinator**

Tyler Griffiths, N7UWX, has been appointed as the new Utah Section Emergency Coordinator (SEC). Tyler is from River Heights in Cache County. The SEC appointment is made by our ARRL Section Manager, Mel Parkes, NM7P. The SEC is involved in finding, appointing and coordinating the individual Emergency Coordinators (EC's) for each county.

Bob Craven, N7GTE, who has held the SEC position for many years, has stepped down as the SEC but will continue on as the officer for the state Radio Amateur Civil Emergency Service (RACES). He will still be in charge of the RACES net, the

annual RACES Conference and any dealing with the State of Utah. Tyler will be working closely with Bob and Mel in this position.

Tyler writes, "I have started a new email group to keep Utah ARES members and those interested in Emergency Communications informed. The following link will take you to the page to join the group: <https://groups.io/g/UtahARES>. Glad to have you on board if you so choose."

## **License Courses OnLine**

During September we will be offering online license courses for the Technician and General licenses. The Technician classes will be on Monday evenings beginning on Monday, September 14<sup>th</sup>. The General classes will be on Wednesday evenings starting on September 16<sup>th</sup>. Both courses will be via ZOOM from 7- 9 PM Mountain Time and will run for nine weeks. We use the ARRL *License Manual* as our textbook, It will be available for a couple of weeks before the classes begin via no-touch pickup at my home. We charge \$33 for the books of which the club makes a small amount to help pay for maintenance of the club's repeaters, our remote HF site, and other club expenses.

We require pre-registration for the courses; otherwise, we don't know who to invite to the ZOOM meetings. If you are interested in taking one of these courses please send email to [ad7sr@arrl.net](mailto:ad7sr@arrl.net) indicating which course you want to take **BY** September 7<sup>th</sup>. If more than one person is registering, please include an email for each of you so you can receive individual homework emails. Please include a phone number where you can be reached in case some emergency occurs that causes us to have to cancel a class on short notice.

## **Wasatch-100 Canceled**

One of the major public service events for amateurs in Utah, the Wasatch 100-mile Endurance Run, had to be canceled this year due to the difficulty of guaranteeing safety for all from the Corona virus.

The run would normally be held over a course a full 100 miles long with about 15 checkpoints manned by amateur radio operators along the way. It uses packet radio to put status of each runner into a database at the finish line.

It is hoped the event will be able to resume in 2021. It is one of the first four 100-mile runs in the country and attracts runners from many parts of the US and even a few from foreign countries. The race committee tells us that it would be difficult at best to hold the event without the help from amateur operators.

## **ARRL Gets New CEO**

The American Radio Relay League (ARRL) Board of Directors has elected David Minster, NA2AA, of Wayne, New Jersey, as ARRL's new Chief Executive Officer, starting on September 28. Minster is currently Managing Partner at Talentrian Partners, a management consulting firm serving the consumer goods and luxury goods industries.

Minster began his career as a software engineer, moving into management at Unilever, as a Chief Information Officer of this globally recognized portfolio of brands that includes Elizabeth Arden Company, Chesebrough-Ponds Canada, Thomas J. Lipton Co., and others. From there, he moved to fine jewelry manufacturer and retailer, David Yurman, where he served as COO and CIO. More recently, Minster served as CEO of jewelry brands Scott Kay and Judith Ripka.

"Building a culture of accomplishment and accountability is what I do best," he said. "My initial focus will be working with the Board on establishing strategic goals and concrete plans to navigate ARRL through the digital transformation required for the coming decades of its Second Century. This includes exciting and innovative ways to be engaged in amateur radio, while growing activity and membership."

Minster got his Novice license, WB2MAE, in 1977, when he was in his teens. He progressed from Advanced to Amateur Extra and, after a stint as NW2D, he settled on the vanity call sign NA2AA in the 1990s as a way to honor a mentor, N2AA, and the contest station that he used to frequent, K2GL, in Tuxedo Park, New York.

Minster's ham radio pursuits have ranged far and wide over the years. His background includes National Traffic System training and participation in public service events, as well as contesting from home, club stations, and contest stations in the Caribbean — particularly on Bonaire, where he is member of PJ4G. Primarily a CW operator, Minster collects unique and vintage bugs and keys.

Minster earned a bachelor's degree in computer engineering from The Ohio State University and has a special interest in satellites, digital communications, remote operation, and ham radio computing and software. He has written keyer software for the commercial market, and contest logging, packet, and satellite telemetry software for personal use.

In addition to being an ARRL member, Minster is a member of AMSAT, the Frankford Radio Club, the Straight Key Century Club, CWops, and the North American QRP CW Club.

“I spend every day of my life, one way or another, engaged in amateur radio. It is more than just a hobby for me; it is my community. It is where I live; where I have built lifelong friendships, and friendships that span the globe. Amateur radio allows me to dream and to experiment. I can't wait to bring my energy and boundless enthusiasm in service to ARRL.”

ARRL President Rick Roderick, K5UR, said, “We are excited to welcome David as our new CEO, and look forward to his progressive leadership. His experience in management and operations, plus his activities in amateur radio, will serve our organization and members well.”

Minster will succeed Barry J. Shelley, N1VXY, who was CEO in 2018, and who has been serving as ARRL's Interim CEO since January 2020. Shelley had been ARRL's Chief Financial Officer since January 1992.

(Thanks to the *ARRL Letter*.)

## **Reward Offered**

A reward of 500 microfarads is offered for the information leading to the arrest of Hop-A-Long capacity. This unrectified criminal escaped from a western primary cell where he had been clamped in ions awaiting the gauss chamber.

He is charged with the induction of an 18-turn coil named millihenry who was found choked and robbed of valuable joules. He is armed with a carbon rod and is a potential killer. Capacity is also charged with driving a DC motor over a Wheatstone Bridge and refusing to let the band-pass.

If encountered, he may offer series of resistance. The electromotive force spent the night searching for him in a magnetic field, where he had gone to earth. They had no success and believed he had returned ohm via a short circuit.

He was last seen riding a kilocycle with his friend Eddy Current who was playing a harmonic.

(Thanks to *Morris, AD7SR*.)

## ***QST* Print Error**

For those who are ARRL members and subscribe to the print edition of *QST* magazine, you might have noticed that, due to a print error, certain items described in the September Table of Contents to be on pages 96 and 97, were, in fact not there nor anywhere in the issue. The items, “100, 50, and 25 years ago” as well as “Silent Key,” can be found in the digital edition of *QST* and will appear in the print edition of the October issue of *QST*.

## **License Examination Schedule**

**Opportunities to test for new or upgraded amateur licenses**

<b>Date</b>	<b>Day</b>	<b>City</b>	<b>Contact Person</b>	<b>Phone</b>
9/02/20	(Wed.)	Clearfield	Joe Girauda, N7JEH	(775) 777-4798
3/18/20	(Wed.)	Provo <sup>5</sup>	Steve Whitehead, NV7V	(801) 465-3983
9/16/20	(Wed.)	St. George <sup>2</sup>	Gary O. Zabriskie, N7ARE	N/A
9/30/20	(Mon.)	Taylorsville <sup>3,5</sup>	Garth Wiscombe, W7PS	(801) 558-5936
10/26/20	(Mon.)	Taylorsville <sup>3,5</sup>	Garth Wiscombe, W7PS	(801) 558-5936

**Note:** Many sessions that would normally be available have had to be canceled to meet Corona virus rules. Be sure to check with the listed contact person to make sure the session is still going to take place. If you can't find a session that meets your needs, you might consider an on-line test. Check <http://www.hamstudy.org/sessions> for sessions that still have openings. Note that for an on-line session it doesn't matter where the examiners are located.

<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>

## **More News**

### **Change to Quartzfest**

I have attended “Quartzfest,” enjoying a week plus of Arizona desert camping with hams from around the country. Quartzfest offers face-to-face QSO's, class instruction, desert events, special events station, programs for everyone, and was being planned to celebrate 25 years. I share the following information if you are not on the mailing list but plan to attend.

Recent email from event organizers explains that due to the Covid-19 pandemic, the January 17-23, 2021 Quartzfest will not be typical. This coming January event will be called “Quartz-Pause.” Nothing formal is planned: no registration, activities, tents, or seminars. However, they explain that many hams may still be onsite and hope we will practice social distancing and wear masks. A daily 8:00 a.m. morning net on 146.55 simplex is planned to collect information from

anyone as to what is interesting, activities you are up to, and coordinate if others are interested in joining together.

Quartzfest 2022 will be scheduled January 23-29, 2022. Check the Quartzfest website for updated information, [www.quartzfest.org](http://www.quartzfest.org).

— Laird Severinsen, WB7TGP

### **FCC Proposes \$50 Fee for Applications**

During the week of August 24 the FCC issued a Notice of Proposed Rulemaking (NPRM) which would add a \$50 fee to applications for new amateur licenses, upgrades of license class, and renewals. The proposal, part of MD Docket 20-216, is already open for comments. A deadline has not yet been announced.

## Member of the Month

### Jens (Mac) Lund, KD7TEB

By Linda Reeder, N7HVF

This month we are featuring Jens Lund, KD7TEB. Jens has been in amateur radio for 18 years. It is emergency preparedness that got Jens interested in amateur radio. He wanted to get into it because of the type of work he is involved in. He works with the sheriff's office in search and rescue. Jens likes working with dogs as well as rescuing dogs.

At one time Jens worked for the fire department where he was a fire fighter for 32 years. He says amateur radio is the best mode of communications. Sometimes amateur radio is the only mode of communications available when all other communication services are down. He says, also, that amateur radio communications is great when in the wilderness.

Jens received his Technician license in 2002. In 2012 he upgraded to General, his current license. Jens likes to talk on the repeaters. He has a Yaesu HF rig and is anxious to get it up and running again. Jens says he has all kinds of amateur equipment.

Jens favorite facet of amateur radio is emergency communications. He likes to help spotters. He also works with the American Red Cross. He is interested in getting involved with digital communications with its various modes.

Jens and his wife, Sherri, have seven children: four boys and three girls. He would really like to see his children getting involved in amateur radio. One of his sons is showing some interest. Jens is also trying to get his brother into the hobby.

Jens is a member of UARC. He is also a member of the Murray Amateur Radio Club. They have weekly meetings and weekly nets. They work with the Murray police and fire departments in emergency communications. Jen is also interested in other hobbies. He enjoys hiking and likes to get involved with other organizations, including a rescue group.

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Jens we appreciate your contributions to amateur radio.



Jens Lind, KD7TEB