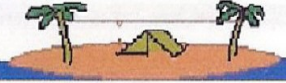


WATTS NEWS



The Best of Amateur Radio

OARC e-Magazine

www.OgdenArc.org

MAY 2022

Next Club Meeting/Activity/Events

Look Inside



Dave Mamanakis KD7GR
President



Justin Hall KB7LAK
Vice President



Colleen Pike KJ7EAY
Secretary



J. Siddle KG7CJN
Treasurer



Mike Wilde KJ7HEX
Program Director



Cody Hearrell KJ7OHU
Activity Director



Val Campbell K7HCP
Webmaster/NL Editor

OARC Watts News Masthead

www.OgdenArc.org

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Antenna Manager – Gene Morgan WB7RLX

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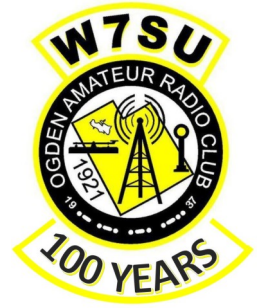
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OARC COMING EVENTS



OARC — May

Golden Spike Special Event—W7G

07, 09 & 10 May 2022

Next VE Test Session

1st Wednesday 01 June 2022 @ 6:00 PM

A MESSAGE FROM OUR PRESIDENT

Dave's Rag Chew



Dave Mamanakis KD7GR

Greetings My Friends!

I hope you all had a wonderful Mothers' Day! We have a lot to be thankful for, with our Mothers being right at the top of that list...

Without our Moms, we wouldn't be around to use Ham Radio!

Now, for a little Club Business:

Our Club has witnessed some Growing Pains recently. It was bound to happen... we've grown so much in the past 2 years!

And, because of our growth, the influx of new and interesting members, I really must ask that we all put forth as much constraint as we possibly can.

Most of what we do with Amateur Radio is done with Gentlemen's Agreements. We also do, and must, follow the FCC rules.

So, if we hear kerchunking, if, somehow, we get Digital Signals on the repeater... if someone doesn't follow the rules "to the letter"... maybe we let the small things slide? Or engage in a conversation with them on or off the air...

Please, my friends, we are not trying to make your life miserable. We ARE trying to help! If we use the radio improperly, if we misuse the repeater, we could have a visit from the ARRL Volunteer Monitors, or FCC Enforcement... and THAT would be bad, for Everyone.

We also don't want people to feel uncomfortable while using the repeater, or for others Operators to be annoyed by activities on the airwaves...

AND, as with everything, we cannot make everyone happy about everything. So we ask, Please have patients, have understanding, use constructive criticism, be nice, be courteous, be eager to learn... and everyone will have a much better experience!

Ok, no more beating that dead horse.

We are going into Summer! And our activities are already in full swing!

We started W7G, our Special Event Station at Golden Spike in Promontory on May 7th! If you didn't go up on Saturday, you still have time! We will be operating on Monday (May 9th) and the Actual Date of the Anniversary of the Driving of the Golden Spike is May 10th (Tuesday!), and we will be operating all day (9 to 5). So, Please come and use the radio! Contact people all over the country! We had contacts from Washington to New Jersey! From Texas to Missouri!

It is a great opportunity to use HF, and a great radio (the Icom IC7300)!

We are also looking forward to our many other summer activities! Keep your eyes on the Club Website for more details about these:

Field Day (June)

The T-Hunt (July)

Steak Fry (August)

And, along with the Steak Fry... start thinking now about what position you'd like to run for in the Club Board! Or, if you know someone in the Club that would be a perfect fit for one of the Board Positions, then put them up by nominating them (ask them first)! As we get closer, we'll put together the Election Committee! If you'd like to get involved, just let us know!

One final thing:

During the winter months, I usually remind people to take a few things with them in their cars, "just in case" something happens. For Winter Driving, I recommend some water, some snack foods, a jacket and blanket (even one of the mylar thermal blankets)... and some few other things.

I also like to recommend we carry a few things in our cars for Summer Driving... namely:

Some water, some snacks, and maybe a jacket (but it doesn't have to be the same jacket you use in the winter), and something you can use for shade.

We never know what may happen, and with all the weird things, like wild fires, earthquakes, and more, we never really know when something might happen, and so it is best to be prepared...

Usually, you don't need much. But having some of the very basics could be the difference between "happiness" and "misery". I don't want to sound overdramatic, but it really is better to be prepared. You can just put it in a corner in your trunk, in the pockets on the back of your seats, in the glove box, or under the seat... some place it will be out of the way, but where you can still get to it if you need.

Thank you all for being great members of our Club!

We hope to see you all at our summer events!

--Dave (KD7GR)

CLUB ANNOUNCEMENTS

CLUB ANNOUNCEMENT

By Larry Griffin, AD7GL



NOTICE NOTICE NOTICE

On Saturday May 7, 2022, we have authorized the use of the 448.600 and the 448.575 repeaters for the Front Runner Century Bicycle race. Please use other repeaters for that day so as to not interfere with race traffic.

On Saturday May 21, 2022, we have authorized the use of the 448.600 for the Ogden Marathon race.

Also on Saturday May 21, 2022 we have also authorized the use of the 448.575 and the 448.775 repeaters for the use of the Wangsgard Memorial Bicycle Race. Please use other repeaters for that day also so as to not interfere with race traffic.

Thanks,

Larry AD7GL

Scott KD7EKO

CLUB NEWS

HAM and EGGS Net

Tuesday Evenings at 6:30 PM Mountain Time

Mt Ogden **70 cm repeater 448.600 MHz** (- offset, 123.0 PL Tone)

New, Intermediate & Old Timers. Elmering, Education, General Ham Discussion and Rag Chew.

New hams encouraged to check in. Get connected, learn new things and ask questions.

Questions: Larry Griffin (AD7GL), ad7gl@arrl.net

Stan Sjol (W0KP), stansjol@xmission.com

Kenny Pronschinske (KI7UFN), kennypron@hotmail.com



Larry Griffin

AD7GL



Stan Sjol

W0KP



Kenny Pronschinske

KI7UFN

CLUB NEWS

10 Meter Net

Thursday Evenings at 0200 UTC (7:00 PM MT)

10 Meters HF - **28.385 MHz SSB (USB)**

Purpose is to promote activity on the 10 meter band (especially during low sunspot activity).

To give technician class operators an opportunity to operate phone, and to provide a venue for conversation and experimentation with antenna and ground wave propagation.

NOTICE: **“Work toward getting your “10 on 10 Award”**

“Work toward getting your “10 meter WAS Award”

Questions and Net Control: Gene (WB7RLX), ee_morgan@outlook.com



Gene Morgan (WB7RLX)

CLUB NEWS

Ham & Eggs Breakfast

Each Wednesday, at a very early 8:00 am, some of the club members meet for an informal breakfast get-to-gather. Everyone is welcome.

Now at a new location:

The Rusted Spoon-Ogden (previously The Stagecoach)

1310 Wall Ave, Ogden, UT

NOTE: See you there ... if you can get up that early.

A record number attended recently ... 17 total.

73, Dave KJ7DAD



Dave DeHeer (KJ7DAD)

PREVIOUS CLUB MEETING/ACTIVITY

CLUB NEWS

Previous OARC

April Meeting

3rd Saturday—16 April 2022

SOTA, POTA

by Cody Hearell KJ7OHU

A photograph of six golden-brown donuts arranged in two rows of three. The donuts are slightly irregular in shape and have a glossy, slightly cracked surface. They are set against a plain, light-colored background. A semi-transparent dark grey rectangular box is overlaid in the center of the image, containing the text.

OARC MEETING
April 16, 2022









PREVIOUS MEETING PICTURES

Photos by ... **club photographers**



Kathryn Sutton— K8RYN



Rick Hansen—N7EGA

"Previous Meeting/Activity/Event" ...

Photos and links located on the club web site home page.

ALSO

Check out the OARC Facebook page

"Ogden Amateur Radio Club"

OARC SOCIAL MEDIA MANAGER ... needed

NEXT CLUB MEETING/ACTIVITY

CLUB NEWS

Next

OARC May Event

Golden Spike Special Event Station—W7G

07, 09 & 10 May 2022

Sign up to operate at Golden Spike.

Check the club website homepage for the latest information.



Stan Sjol W0KP previous GS event

W7G



Golden Spike Special Event

Confirming contact with:			Date (dd/mm/yyyy)	
Band	Mode	RST	UTC	QSL PSE TNX

Verified: _____

Comments:

Printed by:
www.PhotoQSLs.com & **AccuColor**

W7G

Ogden Amateur Radio Club
W7SU - Since 1937
P.O. Box 3353
Ogden, UT 84409
U.S.A.

www.OgdenARC.org

The Golden Spike was 5 5/8 inches long, weighed 14.03 ounces and was made of 17.6 carat gold. It was engraved on all four sides and the top. Two sides bore the names of railroad officers and directors. Another side was engraved, "The Pacific Railroad ground broke Jany 8th 1869." The fourth side was engraved, "May God continue the unity of our country as the railroad unites the two great oceans of the world. Presented David Hewes San Francisco." The top of the spike was simply engraved, "The Last Spike."

CLUB & HOBBY NEWS

CLUB NEWS

The OARC Board

The OARC Board is comprised of the 6 elected officers, board advisors (past presidents), plus **several volunteers**.

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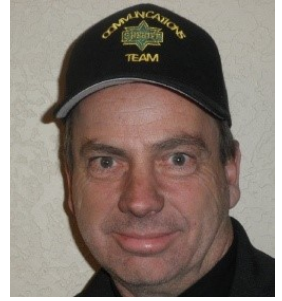
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CLUB NEWS

By Scott Willis, KD7EKO



RESEARCH ABOUT AMATEUR RADIO REPEATERS

Scott Willis, KD7EKO,

The club received this email at the OARC email address. Would you consider responding to Gabriel. She seems to be a HAM prodigy of sorts. I checked her out on QRZ. Very interesting. BTW, she is NOT related to me. Thanks. 73, Val Campbell K7HCP

Hello,

My name is Gabriel Campbell, I am a high schooler in Salt Lake City, and I am writing a piece on amateur radio for our school's newspaper. As part of that piece, I am going over the costs and lengths that people go to operate public ham radio infrastructure such as repeaters, often without any expectation of compensation. Your club's call sign is currently listed as an operator on the UT VHFS repeater list, so you may have some insight in this area. If it is someone else's responsibility to maintain the repeaters for the club, I would appreciate if you could point me in the right direction.

I was curious about what the costs associated with operating your repeater(s) are. Not only the direct monetary cost to acquire the equipment, and the ongoing costs associated with it, but the time cost; the time taken to set up the repeater, and the time to maintain it over time. I am especially interested what this looks like for your permanent mountaintop repeaters, such as those on Mt. Ogden, as it is fairly remote. In short, what are the direct and indirect costs associated with acquiring and maintaining the repeater? Do you have any help funding and maintaining it, or is it all out of pocket/by yourself or another individual?

Thanks in advance!

Thank you, Gabriel Campbell, KE6BAL

Hi Gabriel, I'm quite impressed with your interest in ham radio and your enthusiasm to research into this and contribute to the newspaper, keep it up I'm proud of you.

So yes, you are correct, there is an extensive amount of work involved in setting up and maintaining HAM radio repeaters for the community and you are also correct about those who do all of that work have zero expectation of compensation. I'll do my best to try to give a glimpse of what's involved.

The initial investment is definitely expensive, most repeaters (radio portion only) can be from \$900 to about \$1,800 if you get the repeater "controller" built-in to the radio. If you purchased the dual radios (repeater) without a controller, then you have to buy a repeater controller and that can be around \$400 or more. Then you have to buy a "duplexer" and that can be as much as \$3,000 for a 2 meter (VHF) duplexer or as high as \$1,000 for a 70 CM (UHF) duplexer. Then if your repeater is located at a site with a lot of other RF interference (from other radios/repeaters), you'll have to purchase a "pre-selector" or a "pass-cavity" (notch filter) and that can be about \$900. Then you have to buy low-loss coax like Helix and that is typically around \$5 a foot so if you have a 100 foot length needed that's \$500 for coax. Then you'll need to purchase an antenna, and if your site is on a high mountain top location with high wind and a heavy ice-loading environment, you'll need to purchase

a commercial grade antenna, NOT standard ham grade antennas. Standard ham grade antennas will break every winter if installed at a high elevation site. A commercial grade antenna is between \$1,000 and \$3,000 depending on the type (folded dipole or vertical) and length/height of the antenna. Next, if the site you plan on installing a repeater has a building and a tower, then you don't have the cost of a building and a tower for the antennas, but typically if the site has a building and a tower, then the owner of that tower/building usually wants you to pay "rent" to be on their tower and in their building, so you have a cost involved either way with this issue.

So let's say that the site you want to erect the repeater has nothing, then you'll have the cost the building which can be a small shack that you might be able to buy used somewhere if you look long enough, but it better be able to be secured very well to keep the vandalism out of the building, the cost of that building can vary widely, let's guess about \$500 used. Then you'll have to buy a tower and a 40 foot Rohn 25g tower will be about \$1,000. Then you'll have to buy a handful of solar panels and you have to buy enough panels that in the winter when they are getting covered in snow or overcast/clouds for a week straight in the winter, you'll still get enough power to trickle at least a small amount of power into your batteries. Our "Little Mountain" repeater site has 10 solar panels, the cost of those panels that we have at Little Mountain are about \$200 each, times 10 panels is \$2,000. Then you have to buy solar panel mounting brackets. The stainless steel brackets we have at Little Mountain are about \$1,000. Then you'll have to purchase a good quality MPPT solar charge controller, the Outback 60 charge controller we have at our Little Mountain site is \$500. Then you'll have to purchase some batteries to run the repeaters/controllers etc. (they are charged by the solar system) and at our Little Mountain site those batteries cost us about \$1,500 and by the way those batteries have to be replaced about every 6 years and they have to be re-filled with about 5 gallons of distilled water about every year.

A lot of ham radio repeaters are on private property and getting permission from the landowner to access that property can be very difficult at times. I have to fill out paperwork and sign a liability waiver every time I access Mount Ogden. On other sites that I know of there's a very big problem of landowner restricting access to the site because of livestock on the property and the owner won't allow anyone access during certain months of the year. I know of other landowners who restrict access for other personal issues also, and it makes it very difficult to maintain your repeater. Another "current" issue is the new proposed rule that if your repeater is on Forest Service land, the repeater owner will have to pay the Forest Service \$1,400 a year, which is causing a lot of heartache for repeater owner/operators right now.

As far as on-going maintenance from year to year, there's a lot of issues that can come up. Wind/ice in the winter or heavy windstorms in other seasons can destroy your antennas, and sometimes even the tower. The tower broke once at Little Mountain and I had to do a lot of work including taking a welder to the site and welding the tower to the building to prevent it from happening again. So you'll have the occasional costs of replacing antennas AND coax also due to environmental conditions (UV from the sun and wind/ice). One problem with that is at most sites around here in Utah you cannot access the site in the winter. You can only "drive" to the Mount Ogden site for about 2 months in each year, August and September. I've snowmobiled to the site, snow-shoed to the site, hiked, and flown in a helicopter to the site many times because of this snow restriction issue. So you have to allow for the possibility that if your repeater breaks down in January, you might not be able to repair it for months.

In addition to the environmentally destructive maintenance concerns causing on-going maintenance, there are other concerns like if you are at a site with many other radio repeaters then you can have "intermod" problems that can pop up. What I mean is that if someone else installs a repeater that starts interfering with your repeater because of a "sub-harmonic" of their transmitted frequency

interferes with your frequency on your repeater, it can cause a lot of noise on your repeater that wasn't there before and you can pull your hair out trying to reduce that interference so you can still use your repeater without noise being caused from their newly installed repeater system. That issue can cause an extensive/ridiculous amount of time and money that you have to spend at the repeater site with trial and error trying to get rid of their noise/interference that is getting into your repeater system.

Another on-going maintenance issue is what I referred to earlier about the batteries, they have to be re-filled each year with distilled water and they have to be replaced about every 6 years. Along those lines you also have to occasionally clean the solar panels and inspect the wires from the solar panels to the charge controller each year too.

If you happen to have an external repeater controller like the Arcom RC210 that we have at Little Mountain, you'll have to go to the site twice a year to change the clock in the controller due to day-light savings time change.

The Utah VHF Society representatives have said that if you are interested in setting up a repeater, you had better have approximately \$20,000.00 to start out with, and then plan on on-going costs and much time spent on it after the initial cost. That statement is very accurate as you can see from what I've described here. As for your question about who funds our repeaters, it's definitely a combined effort between a lot of money out of my own pocket that I donate and other individuals that donate their time and money, plus the club has a repeater fund, and other entities contribute also.

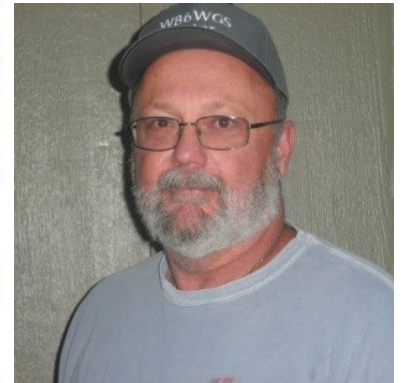
I've mentioned the financial perspective of setting up and maintaining a repeater, but I didn't mention simple things like how much time it takes, which is more than you'd imagine, and all of the gas money it takes to drive to the site(s), and the expensive tools needed like my \$1,000 analyzer and my service monitor (between \$2k and \$5k), but what I haven't mentioned yet is the technical perspective. Whoever is setting up and maintaining the repeater should also be aware that they will be overwhelmed if they don't know how to tune a duplexer, or a pass cavity/pre-selector. It takes a lot of technical expertise to maintain a repeater, especially if that repeater is around other repeaters like at most sites.

Overall, yes, it's a large undertaking to set up and maintain a repeater from a financial perspective, and a "technical" perspective, and the BIGGEST issue is "carefully" dealing with a huge amount of anxiety provoking politics, most of which I've not even mentioned here because it would be overwhelming to try to explain all of that.

If you have any questions, especially if I've missed answering one of your questions, don't hesitate to ask.

Scott Willis
KD7EKO

CLUB NEWS



Pete Heisig AI7GV

Congratulations to Pete Heisig AI7GV for being the first OARC member to achieve the goal of contacting and confirming a 10 meter QSO with all 50 states.

Refer to the OARC 10 meter net website page for additional information.

[http://ogdenarc.org/10 meter net.html](http://ogdenarc.org/10%20meter%20net.html)

Again, Congratulations Pete.

CLUB NEWS

Announcing



OARC - WORKED ALL STATES (WAS) RECOGNITION AWARD

Purpose is to promote activity (any mode) on all amateur bands (especially during low sun-spot activity).

Contacts made during Solar Cycle 25 (starting 01 Jan 2020)

Contact log submissions are not required. HAM Honor System respected!

Refer to the OARC WAS website page for additional information.

<http://ogdenarc.org/WAS.html>

CLUB NEWS

NEW! *2022 Simplex Challenge* to Get Radio Active

NEW! **Simpler requirements & Easier log requirements**

To encourage additional activity and interest toward OARC's 2022 Simplex Challenge to get Radio Active the award requirements have been simplified.

To qualify for your first award you only need to log 10 contacts.

And the minimum hand log requirements are:

stations worked (callsign/name), date/time , frequency

Lets get in the air and do it!

2M:

146.520 MHz (primary)

146.540 MHz

146.560 MHz

70cm:

446.000 MHz (primary)

446.500 MHz

447.800 MHz

HOBBY NEWS

KSL Radio (previously KDYL) celebrates 100 year of broadcasting in Utah this May.

W7SU celebrates 101 year of broadcasting in Ogden this May.



Go OARC!



HOBBY NEWS

Was I ever surprised when I first touched the pages of the May QST magazine. It seems that supply chain problems caused ARRL to make some hopefully very TEMPORARY changes to the paper quality that they use to print QST magazine.

Below is the notice from QST explaining what's happening.



May 2022 QST paper

As many organizations and industries have struggled with supply chain issues, ARRL has been no exception. The supply of paper has become constrained for many reasons, and despite the best efforts of our publishing partner LSC Communications (formerly R.R. Donnelley) to mitigate those problems, getting paper for the May 2022 issue of QST was a challenge to ensure it was printed and distributed to members -- and on time.

While other magazines have struggled to get their print edition delivered to subscribers, we were not going to let this be an issue for our members. As a result, we went to paper brokers to get paper, to ensure QST would be delivered. Regrettably, as you have probably seen, the paper is printed on different paper than readers are used to, and not what we would have liked. However, we are happy to know that members have been receiving their copies and enjoying them, despite the difference in this issue's paper.

Please note that this is not a new direction for QST. We have not made a conscious decision to change the paper QST is printed on every month. Even though going to paper brokers is an expensive proposition, the ARRL Board and Staff will do what is necessary to keep the presses running for our membership journal. We are committed to ensuring that our members receive QST on a timely basis.

Even before the current supply chain problems, we were facing the reality that there are, today, fewer printers, fewer paper mills, and always-rising costs for paper, transportation, and mailing. This is not a short term problem - it will require our continued close attention as we manage the print side of our organization.

The good news is that ARRL committed to developing a parallel print-and-digital publishing competency over 10 years ago. Today, all members can access all four ARRL periodicals -- QST, *On the Air*, NCJ, and QEX -- in fully searchable digital editions. These are available to you any time and from anywhere.

CLUB NEWS

Ham Shack Photos

The previous months unidentified ham shack was...



KJ7VRM

Craig Howe

CLUB NEWS

Ham Shack Photos

The next in the series of unidentified ham shacks is shown below.



Do you know whose ham shack this is?

CLUB NEWS

Ham Shack Photos

STILL WANTED—STILL NEEDED

Send me your Ham Shack Photos soon!

Submit to: k7hcp@arrl.net or w7su@arrl.net or 801.389.0690

CLUB NEWS

Unique QSL Cards



WB7RLX

Eugene Morgan
2757 Buchanan Ave
Ogden, UT 84403
USA

Portable Location: _____

Mobile Location: _____

Confirming QSO With:

Radio:

DN41af • Weber County

DATE			UNIVERSAL TIME UTC	FREQUENCY MHZ	2-WAY MODE	REPORT		
DAY	MO	YR				R	S	T

Remarks:

www.qslworks.com

Please QSL Thanks QSL
TNX QSO _____

The Picture on the front of this card is of the Spiral Jetty located on the Great Salt Lake.

The picture on the card is one I took using my drone

CLUB NEWS

Unique QSL Cards

STILL WANTED—STILL NEEDED

Send me your QSL Card Photos soon!

Submit to: k7hcp@arrl.net or w7su@arrl.net or 801.389.0690

CONTRIBUTING EDITOR SUBMISSIONS

GUEST ARTICLE

by Rick Hansen N7EGA



Why were the letters "W" and "K" selected for radio station call letters in the United States?

In the early days of radio there was little or no formal authority over the naming of broadcast stations, which led to such problems as a radio station in Boston calling itself ABC and another station in nearby Portsmouth, NH also calling itself ABC.

During the early part of the 20th century various international agreements were hammered out to assign blocks of call signs to each country.

By the 1930's the U.S. ended up with the block of call signs beginning with "K" and "W" to use for all radio stations regulated by the Federal Communications Commission.

The FCC decided that all stations east of the Mississippi River would use the letter "W" at the beginning of their call sign, and all stations to the west of the Mississippi River would use call signs beginning with "K."

Call signs originated in the early days of telegraphy as a quick method to identify a station originating a message. A call sign such as CHI was much easier to send than "Chicago, IL"

1844 telegraph key



It is important to remember that in the early days of radio, all information was transmitted using a variation of Morse code.

Thus "Chicago, IL" would require this string of letters:

--- ····· ··· --- ··· ··· --- ··· ··· ··· ··· ··· ···

While "CHI" would require this:

--- ··· ···

A really good radio operator could only send and receive perhaps 40 words per minute, so lots of abbreviations were used, including unique identifiers for each radio station.

"Bug" style keys allowed faster rates of sending Morse code.

Standards similar to those used to assign radio call signs are what make it possible for us to type "infoforum.com" in our browser address window and always end up here.

But instead of dealing with information being transmitted at 40 words per minute, we now enjoy transmission rates exceeding half a million words per minute on the World Wide Web.

Submitted to Watts News by Rick Hansen, N7EGA

GUEST ARTICLE

by Kent Gardner WA7AHY



The Third Saturday

I always look forward to the third Saturday of the month because of the Ogden Amateur Radio Club (OARC) meetings. April's subject on SOTA, POTA and remote operations were particularly appealing, BUT,

I have been a member of the Society of Amateur Radio Astronomers (SARA) for years and had signed up for their annual Spring Conference. It is normally held in Socorro, New Mexico and at the Very Long Baseline Array (VLBA) antenna site East of there. These conferences have been held virtually via Zoom lately because of Covid restrictions. This year's conference was again, via Zoom, and fell on "The Third Saturday", so I naturally stayed home from the club meeting all day and participated in the SARA conference virtually. It never disappoints. I hope to be able to watch the SOTA and POTA discussions on You tube, if available. Thank goodness for modern technology.

One of the SARA presentations was entitled A Multi-wavelength Extremely High Frequency Imaging Solar Radio Telescope or How I Learned To Love My Spectroheliograph. In the presentation were two pictures that I immediately took a liking to. Ham radio has many facets and the photographs on the following page show a couple of them.

The paper was given by Professor David G. Iadevaia, PhD of Tucson, Arizona in the Society of Amateur Radio Astronomers Spring Conference via Zoom on Saturday 16 April 2022. Pictures used by permission.

Note: SOTA is Summits on the Air

POTA is Parks on the Air

TNX

Kent Gardner, WA7AHY

What is this?



It's a radio...it tunes according to:

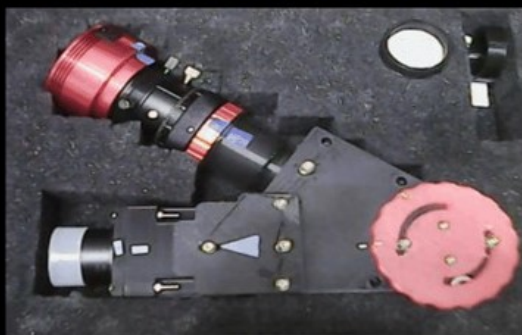
a HAM: 160 - 6 Meters

a Physicist: 30 kHz to 56 MHz

an Astronomer: 6 - 160 Meters



What is this?



It's also a radio...it tunes according to:

a HAM: 720 – 390 Nanometers

a Physicist: 3.8×10^{14} – 7.7×10^{14} Hz

an Astronomer: 390 – 720 Nanometers



GUEST ARTICLE

by Kent Gardner WA7AHY



Another Mystery Signal

I don't know if I am just lucky or I am a magnet for receiving mystery radio signals.

Ask me sometime to tell you a Sony Walkman clandestine Morse code-like signal heard next to the train station in Ogden and my more recent experience with a 10-meter mystery repeating beep signal on 28.230.6 KHz.

Now, I came across a repeating hash noise on top of KSL-AM on 1160 KHz.

I have a Sony handheld transistor radio by my sink where I shave. I listen every morning to the news from KSL and have been doing this for about all the time I have lived in the house (since 2003). I had never heard this interference before.

After hearing this repeating interference signal one morning, I finished shaving and got dressed. I took the radio around the house and yard. The AM loop inside the radio favored the strongest signal when broadside, mostly. The signal got weaker when I was outside so I concentrated inside. In the basement I have a sump pump plugged into a wall outlet. When I unplugged it, the strength decreased, but did not disappear. I couldn't find anything definitive, so went to my desk. I pushed the computer front panel ON button. As the computer was booting up, I noticed that the hash noise on top of 1160 KHz disappeared. This was a WOW moment. I turned the unit off using the soft off shut-down sequence with the mouse. When the computer went off, the signal **reappeared**. Interesting!

I used an audio recording app on my cell phone to record the sequence.

- Repeating raspy signal was heard

- Pushed computer front panel On button

- Heard the signal disappear

- Immediately clicked on the screen turn off icons

- As the computer shut down, I heard a shut-down tone. The tone follows the slope similar to tuning a CW signal going down slope. At zero beat things went silent, but then the tone went upslope and started up the interfering tone again.

Why this signal was noticed this week after all these years I have been listening, I don't know. There were a few fast dimming/surges of the utility power three or four times a few days ago, so could have damaged the surge protectors? At that time the TV, and house lights blinked several times over a minute's time, but did not go off. My combo VHS/DVD player did go off enough that I had to reset the blinking clock display on the unit.

The signal was not just on KSL at 1160 but was noticeable up the band to 1190 KHz so, it is somewhat wideband?

I ended up going to the computer store where I bought the computer, but none of the desktop units like mine showed any signals. While there the employee suggested that I turn off everything like monitors, printers and audio devices. I did, but no change.

Then I found the solution.

I reached behind my computer and turned the main mechanical power supply On-Off switch to Off. The interfering signal disappeared. I turned the switch back on and after it booted-up I used the mouse to Start, Power and Shut Down to turn it off. The signal was no longer there. **Wow, it appears that something in the Soft Off or Sleep Mode circuitry reset and is no longer sending out the interfering signal.**

Kent Gardner, WA7AHY



ARRL – Utah Section QUARTERLY NEWSLETTER

April 2022 — WHAT'S IN THIS ISSUE

- Meet the Utah Section Staff - Current Utah Section Staff Appointments.
- Section Manager's Desk - First Gordon Smith Lifetime Achievement Award awarded to Gordon Smith Changes to Utah section staff appointments.
- Section Emergency Coordinator's Report - Great Utah Shakeout and the new Winlink Did You Feel It (DYFI) template.
- Section Club Coordinator's Report - How do clubs get money and what do they use it for?
- Section Traffic Manager's Report - What is an Official Relay Station and what does PSHR mean? First quarter section traffic report.
- Technical Coordinator's Report - Radio Direction Finding.
- Section Youth Coordinator's Report - Every ham can share the hobby.
- Governmental and Legislative Update - Updates on government and legislative actions that impact amateur radio.
- Public Information Coordinator's Report - ARRL's clarification on the FCC license fee and World Amateur Radio Day.
- Upcoming Events and Online Resources - What to watch for and helpful links.
- Remembering Friends no Longer with Us – Silent keys.

NOTE: Article is far too large to publish here. Use the following link to review.

arrlutah.org/wp-content/uploads/2022/04/ARRL-Utah-Section-Newsletter-Q2-2022.pdf



ARRL Youth Licensing Grant Program

The ARRL Youth Licensing Grant Program, in effect since April 19, 2022, will cover the one-time \$35 application fee for new amateur radio license candidates younger than 18 years old for tests administered under the ARRL Volunteer Examiner Coordinator (VEC) program.

"We are thrilled that we are able to provide this opportunity to our youth candidates," said ARRL VEC Manager Maria Somma, AB1FM.

The \$35 Federal Communications Commission (FCC) application fee will be reimbursed after the ARRL VEC receives the completed reimbursement form and after the new license has been issued. The reimbursement check will be mailed to the fee payer. Also, candidates younger than 18 years old would pay a reduced exam session fee of \$5 to the ARRL VEC team at the time of the exam. The \$5 fee is for all candidates under the age of 18, regardless of the exam level taken. Proof of under 18 status is required at the session.

The ARRL Board approved the Youth Licensing Grant Program at its July 2021 meeting in Hartford, Connecticut, expanding on the scope of the original motion proposed by ARRL Southeastern Division Director Mickey Baker, N4MB.

The Board believes the recruitment and training of young amateur radio operators is a necessary and proper mission of the ARRL and subsidization of the \$35 fee will reduce the number of new amateurs that would otherwise be lost from these groups. Initially the new program would serve up to 1,000 new license applicants under 18 years old. The program length is indefinite; it may be renewed or terminated by the Administration and Finance Committee or by the Board of Directors.

Visit the ARRL website for the program instructions and reimbursement form at www.arrl.org/youth-licensing-grant-program.



New FCC Application Fee Will Not Apply to Amateur Radio License Upgrades

04/04/2022

The Federal Communications Commission (FCC) staff has clarified in response to an ARRL request that the new \$35 application fee will not apply to most license modifications, including those to upgrade an amateur radio licensee's operator class and changes to club station trustees. The FCC staff explained that the new fees will apply only to applications for a new license, renewal, rule waiver, or a new vanity call sign. As previously announced, the new fees take effect on April 19, 2022.

"We are pleased that the FCC will not charge licensees the FCC application fee for license upgrade applications," said ARRL Volunteer Examiner Coordinator (VEC) Manager Maria Somma, AB1FM. "While applicants for a new license will need to pay the \$35 FCC application fee, there will be no FCC charge for future upgrades and administrative updates, such as a change of mailing or email address. Most current licensees, therefore, will not be charged the new FCC application fee until they renew their license or apply for a new vanity call sign."

ARRL previously [reported](#) that the new \$35 application fee for amateur radio licenses will become effective on April 19, 2022. Further information and instructions about the FCC Application Fee are available from the ARRL VEC at www.arrl.org/fcc-application-fee.



New Amateur Radio License Applications Fee To Become Effective April 19, 2022

03/24/2022

A Public Notice released by the Federal Communications Commission (FCC) on March 23, 2022, in [MD Docket No. 20-270](#), announced that new application fees for Wireless Telecommunications Bureau applications will become effective on April 19, 2022. The new fees, mandated by Congress, apply to applications for Amateur Radio licenses including those associated with filing Form 605, the Amateur Operator/Primary Station Licensee Application.

Effective April 19, 2022, a \$35 fee will apply to applications for a new Amateur Radio license, modification (upgrade and sequential call sign change), renewal, and vanity call signs.

Anticipating the implementation of the fee in 2022, the ARRL Board of Directors, at its July 2021 meeting, approved the "ARRL [Youth Licensing Grant Program](#)." Under the program, ARRL will cover a one-time \$35 application fee for license candidates younger than 18 years old for tests administered under the auspices of the ARRL Volunteer Examiner Coordinator (ARRL VEC). Qualified candidates also would pay a reduced exam session fee of \$5 to the ARRL VEC. ARRL is finalizing details for administering the program.

ARRL had filed comments in opposition to imposing a fee on Amateur Radio license applications. The FCC initially proposed a higher, \$50 fee. In a Report and Order (R&O), released on December 29, 2020, the amount was reduced -- the FCC agreeing with ARRL and other commenters that its proposed \$50 fee for certain amateur radio applications was "too high to account for the minimal staff involvement in these applications."

ARRL Volunteer Examiner Coordinator (ARRL VEC) Manager Maria Somma, AB1FM, explained that all fees are per application. "There will be no fee for administrative updates, such as a change of mailing or email address. The fees will be the responsibility of the applicant regardless of filing method and must be paid within 10 calendar days of FCC's receipt of the application. For applications filed by a VEC, the period does not begin until the application is received by the Commission, a ULS file number assigned, and an email sent by the FCC directly to the applicant."

VECs and Volunteer Examiner (VE) teams will not collect the \$35 fee at license exam sessions. New and upgrade candidates at an exam session will continue to pay the \$15 exam session fee to the ARRL VE team as usual, and pay the new, \$35 application fee directly to the FCC by using the CORES FRN Registration system ([CORES - Login](#)).

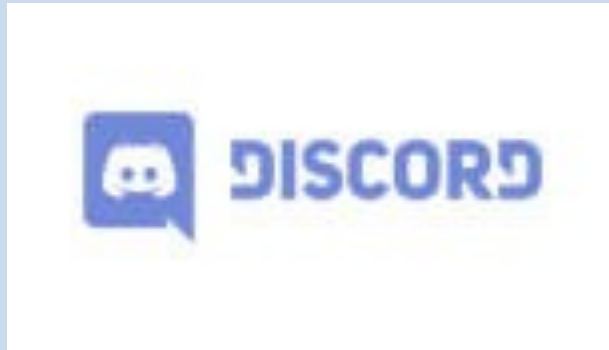
When the FCC receives the examination information from the VEC, it will email a link with payment instructions to each successful candidate who then will have 10 calendar days from the date of the email to pay. After the fee is paid and the FCC has processed an application, examinees will receive a second email from the FCC with a link to their official license or explanation of other action. The link will be good for 30 days.

Somma also explained that applications that are processed and dismissed will not be entitled to a refund. This includes vanity call sign requests where the applicant does not receive the requested call sign. "The FCC staff has suggested that applicants for vanity call signs should first ensure the call signs requested are available and eligible for their operator class and area, and then request as many call signs as the form allows to maximize their chances of receiving a call sign."

Further information and instructions about the FCC Application Fee are available from the ARRL VEC at www.arrl.org/fcc-application-fee. Details for the ARRL Youth Licensing Grant Program will be similarly posted there, when available.

OARC Discord Page

Repeat notice



Did you know that OARC has a Discord page ?

What is a Discord Page you ask?

It is OARC's new discussion group site.

Just click on the icon on the bottom of the club website home page to join and visit OARC's ongoing discussion threads. Check it out!

O'bay Swap

(repeat)

SWAP ITEM # 225

FOR SALE: Misc Antenna: equipment, parts, cables, etc. (donated to OARC)

REFER TO CHART: Donation Inventory

ASKING PRICE: \$ make offer \$ (as a donation to your club)

CONTACT: Gene Morgan WB7RLX, 801-540-4907, ee_morgan@outlook.com

<http://OgdenARC.org/swap.html>

CLUB NEWS

(repeat)

WANTED...

OARC EQUIPMENT MANAGER



Consider the rewards awaiting you to volunteer for this rewarding and thrilling opportunity. *Hurry because this opening will go fast.* Contact our club president to secure your role in this position.

Thank you everyone. 73

CLUB REFERENCE MATERIAL

CLUB REPEATER NEWS



Scott Willis KD7EKO



Mike Fullmer KZ7O

Scott Willis KD7EKO and Mike Fullmer KZ7O are the OARC repeater engineers that keep our club repeaters at Mt Ogden and Little Mountain operational.

OARC MEMBERSHIP DRIVE

SUPPORT YOUR RADIO CLUB

Don't forget to signup/renew your OARC membership now (\$15) which runs August to August. Consider signing up your spouse as well. Remember ... FREE Steak at Steak Fry for ALL members.

Ham + Spouse = \$15 + \$10 = \$25

THANK YOU FOR YOUR SUPPORT

Join OARC

Join or Renew your membership now!

Joining & Renewal is easy. On the club website home page click Join/Renew tab and fill out the membership form. You can pay using your PayPal or mail a Check or Money Order to the club PO Box listed. Or print a hardcopy of the membership form, fill it out and mail it to the PO Box along with your payment. Better yet, Come to a club meeting and bring the completed membership form with you.

DUES: Dues are \$15.00 per person and runs August - August. (Ham + spouse = \$25.) More than one ham in the family? Consider the OARC Family plan for \$25.

NOTE: New Hams >>> Membership in OARC is complimentary for remainder of 1st year licensed.

Membership in the Ogden Amateur Radio Club is open to anyone interested in Amateur Radio. You do not need an amateur license to join us. You do not need to join the club to participate with us. Dues are used to operate the club, field day activities, and repeater equipment maintenance.

Club Badges

OARC Club badges are available for all licensed club members.

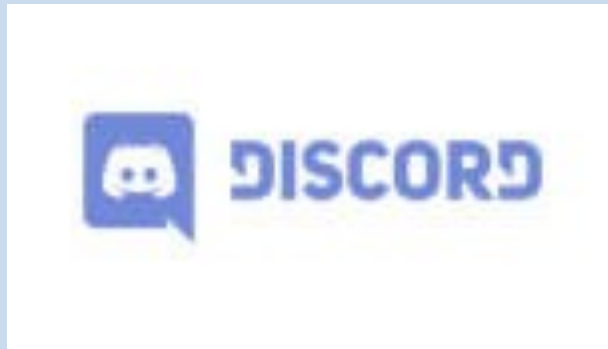
The cost is **\$12.00** each. The badge comes with a “MAGNETIC” clip. Badge includes your Call Sign in large letters and your First Name in a somewhat smaller font in white lettering on a pitch black background with the club logo. See example below.



Place your order along with **\$12.00** prepaid in advance for each badge ordered and specify Call Sign and First Name.

Visit the club website home page Join/Renew tab and select the Badge Order form to order your badge. You can use PayPal or mail your check to the club PO Box.

OARC Discord Page



Did you know that OARC has a Discord page ?

What is a Discord Page you ask?

It is OARC's new discussion group site.

Just click on the icon on the bottom of the club website home page to join and visit OARC's ongoing discussion threads. Check it out!

OARC Facebook Page



Did you know that OARC has a Facebook page ?

Just click on the icon on the bottom of the club website home page to visit OARC's ongoing monthly activities and events. Check it out!

OARC You Tube Channel



Did you know that OARC has a You Tube Channel ?

A lot of our meeting presentations are recorded and posted to our OARC You Tube channel for you to view at a later date.

It's easy to view missed



meetings...

Just click on the icon on the bottom of the club website home page to view recorded meetings preserved for your viewing pleasure. Check it out!

ANNOUNCEMENTS

Next Club Meeting:

3rd Saturday of each Month

The Ogden Amateur Radio Club meetings are usually held on the **3rd Saturday** of each month.

Meeting/Activity:

See monthly notices earlier in this newsletter.

Talk-in: - 448.600 (pl 123.0)

Check OARC web site for details

www.ogdenarc.org

Please invite a friend to join you. You do not have to be a member of the club to participate in our club meetings or activities. We invite all to join us.

If anyone is interested in doing a presentation on something or just have something unique to show at the meetings. - Please get a hold of any of the officers and let us know.

Next Weber Co VE Test Session:

1st Wednesday Feb, Jun & Oct

Exam sessions are held in Ogden every few months, **usually** the first Wednesday in February, June, and October.

Time: 06:00 PM *Walk-ins allowed*

Location: Permanent location

**Utah Military Academy
5120 S 1050 W
Riverdale UT 84405**

Contact: VE Liaison:

Rick Morrison W7RIK (Co-Liaison)

morrisonri@msn.com (801-791-9364)

Gil Leonard N7GIL (Co-Liaison)

Jason Miles KE7IET (IT)

Cost: \$ 14.00

Two forms of **ID**, one of which must be a **picture ID**.

For "Upgrades" bring current **license** and a **copy** of current license, and any **CSCE's**

Most **calculators** allowed. Calculator memories must be cleared before use.

AREA CLUB MEETINGS & WEB SITES

CLUB	WEB SITE	DATE/TIME	LOCATION
OgdenARC	ogdenarc.org	3 rd Saturday 09:00 am	Check OARC web site ...
WC Sheriff Comm-O		1 st Saturday 10:00 am	Weber Co. Sheriff Complex West 12 th Street Ogden Utah
Barc	barconline.org	2 nd Saturday 10:00 am	Cache Co. Sheriffs Complex 200 North 1400 West Logan Ut
CSErg	dcarc.net /ares.htm/	Last Wednesday 8:30pm	Clearfield City Hall Clearfield Utah
DCarc	dcarc.net	2 nd Saturday 10:00 am	Davis Co. Sheriff Complex Farmington Utah
NU Ares	home.comcast.net/ ~noutares/	3 rd Wednesday 7:00 pm	Cache Co. Sheriff Office Logan Utah
Uarc	xmission.com /~uarc/	1 st Thursday 7:30 pm	UofU EMC Bldg Room 101 Salt Lake City Utah
UVarc	https://uvarc.club	1 st Thursday 6:30 pm	Orem City Council Chamber Room 56 North State St. Orem Utah
GSarc	Ubetarc.org	Check Website	Check Website
Utah DX Association	udxa.org	3 rd Wednesday check web page for details	check web page for details Salt Lake City area
UvhfS	ussc.com /~uvhfs/	Each Tuesday 8:00 pm (refer to web site)	Weekly 2 meter net (no eye ball meetings)
WDArc	westdesertarc.org/	1 st Tuesday 7:00 pm	Tooele County Courthouse Tooele Utah
WsuArc	https://groups.google.com/forum/#! forum/wsuarc	3 rd Thursday 5:30 pm	WSU Blding #4 Room ? Ogden Utah

Club Web Site

Be sure to visit our club web site.

www.OgdenARC.org

Club membership is open to anyone interested in Amateur Radio. You do not need an amateur license to join us. Dues are used to operate the club, field day activities, and repeat-er equipment maintenance.

Club Call Sign

Listen to the club repeaters for this very familiar CW ID. You do know Morse Code don't you?

W7SU

OARC is 100 years old

OARC was established in May 1921 and became ARRL affiliated in 1937.

OARC REPEATERS			
(*) Yaesu Fusion digital/FM compatible			
FREQ	CLUB	TONE	LOCATION
146.900-	OARC (*)	125 DCS	Mt Ogden (w/WiresX)
448.600-	OARC (*) "talk-in"	123.0	Mt Ogden
146.820-	OARC (*)	123.0	Little Mtn
448.575-	OARC	100.0	Little Mtn (no autopatch)

FREQ/Offset	TONE	LOCATION	OWNER
145.250 -	PL 123.0	Weber State Univ	WSC
145.290 -	PL 123.0	Brigham City	GSARC
145.330 -	PL 100.0	BYU (Provo)	BYUarc
145.430 -	PL 123.0	Brigham City	GSARC
145.470 -	PL 123.0	Powder Mountain	WCSO
145.490 -	PL 100.0	Promontory Point	K7JL
146.620 -	PL none	Farnsworth Peak	UARC
146.640 -	PL none	Logan	BARC
146.720 -	PL 103.5	Mount Logan	BARC
146.760 -	PL none	Lake Mountain	UARC
146.780 -	PL 100.0	Lake Mountain	UVARC
146.920 -	PL 123.0	Promontory Point	WCSO
147.040 +	PL 123.0	Antelope Island	DCARC
147.100 +	PL 123.0	Morgan County	KB7ZCL
147.120 +	PL 100.0	Farnsworth Peak	UARC
147.220 +	PL 123.0	Brigham City	GSARC
147.260 +	PL 103.5	Promontory Point	BARC
147.360 +	PL 100.0	Lewis Peak	Summit Co ARC
447.200 -	PL 127.3	Antelope Island	DCARC
447.225 -	PL 100.0	Malad Idaho	Malad Repeater
447.775 -	PL 123.0	Powder Mountain	WCSO
448.300 -	PL 123.0	Brigham City	GSARC
448.775 -	PL 123.0	Promontory Point	WCSO
448.825 -	PL 123.0	Clearfield City	IRLP Node 4654
449.100 -	PL 146.2	Farnsworth Peak	UARC
449.250-	PL 123.0	Weber State Univ	WSC
449.425 -	PL 100.0	Nelson Peak	IRLP - Western Refl
449.500 -	PL 100.0	Farnsworth Peak	UARC
449.625 -	PL 103.5	Mount Logan	BARC
449.925 -	PL 100.0	North Salt Lake	DCARC
449.950 -	PL 123.0	Clearfield City	IRLP Node 3876
ATV - wb7fid	TV Ch 58	Farnsworth Peak	UARC - Utah ATV

LOCAL AREA NETS

DATE	CLUB	FREQ
Daily @ 12:30 PM mt	Utah Beehive net HF	7.272 Mhz HF LSB
Daily @ 07:30 PM mt	Utah Code net HF	3.570 Mhz HF CW
Daily @ 02:00 UTC	Utah Farm net HF	3.937 Mhz HF LSB
Sunday @ 8:45 AM	Ogden Old Timers HF net	7.193 Mhz HF LSB
Sunday @ 7:15 PM	Weber/Davis ERC	146.820 - 123.0 (ERC training net)
Sunday @ 7:30 PM	GS ARC	145.430 - 123.0 (training net)
Sunday @ 8:30 PM	SATERN Net	145.900 - 123.0
Sunday @ 9:00 PM	Morgan Co Net	147.100 +123.0
Sunday @ 9:00 PM	UARC Info net	146.620- no PL tone required
Monday @ 9:00 PM	2-meter SSB net	144.250 Mhz 2-meter USB
Tuesday @ 6:30 PM	OARC—Ham & Eggs Net	448.600 -123.0
Tuesday @ 8:00 PM	Weber ARES	448.600 - 123.0
Tuesday @ 8:00 PM	DCARC TECH Net	147.040 + 123.0
Tuesday @ 8:00 PM	VHF Society Swap	147.120 + 100.0
Tuesday @ 9:00 PM	Bridgerland ARC	147.260 + 103.5
Wednesday @ 7:00 PM	Am-Con Northern Utah	448.600 -123.0
Wednesday @ 8:00 PM	GS ARC	145.290-, 145.430-, 448.300- (all 123.0)
Wednesday @ 8:30 PM	CSE RG	145.770 simplex
Wednesday @ 9:00 PM	No. Utah 10m HF net	28.313 Mhz HF USB
Wednesday @ 9:00 PM	6-meter SSB net	50.125 Mhz 6-meter USB
Thursday @ 7:00 PM	OARC - 10 Meter Net	28.385 MHz USB (all hams invited)
Thursday @ 7:30 PM	Davis Co ARES	147.420 = simplex & 449.925 -100.0
Thursday @ 8:00 PM	Weber State ARC	146.820 - 123.0 (coming soon)
Thursday @ 8:00PM (3rd Thurs)	State RACES VHF/IRLP	145.490 - 123.0, 146.680 - 123.0
Thursday @ 9:00PM	Wasatch Back Net	147.360 + 100.0
Saturday @ 8:00AM mt (3rd Sat)	RACES State HF	3.920 Mhz HF LSB
Saturday @ 11:00AM mst	QCWA net HF	7.272 Mhz HF LSB

73 de W7SU

www.OgdenARC.org

w7su@arrl.net

PO Box 3353 Ogden UT 84409