





The Best of Amateur Radio

OARC e-Magazine

www.OgdenArc.org

JUNE 2015

Next Club Meeting/Activity

Activity: ARRL FIELD DAY EVENT



Gil Leonard NG7IL

President



Jason Miles KE7IET

Vice President



Larry Griffin AD7GL

Secretary



John Shupe K7DJO

Treasurer



Pete Heisig WB6WGS
Program Director



Mike Taylor KE7NQH
Activity Director



Val Campbell K7HCP
Webmaster/NL Editor

DDEVIOUS CLUB MASSTING

PREVIOUS CLUB MEETING

Activity:
Golden Spike Special Event
Fri 08 & Sat 09 May 2015

Meeting: Riverdale Fire Station 3rd Saturday 16 May 2015 9:00 AM

Topic: Field Day - Past and Future

NEXT CLUB MEETING/ACTIVITY

Activity: ARRL Field Day - sponsored by Ogden ARC

Date: Saturday 27 June 2015 to Sunday 28 June 2015

Time: Noon Saturday till Noon Sunday. Setup Saturday @ 9:00 am

Location: Marriott Park (1065 S 1200 W)

Note: Dinner main course and drinks provided ... 5:00 pm Saturday evening.

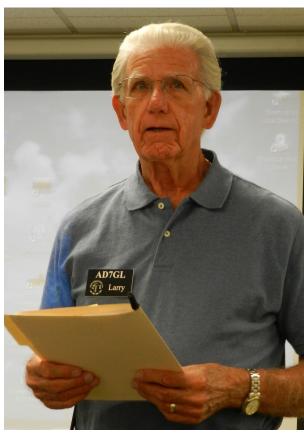
However ... Please bring a side dish to share (salad, fruit, desert, side dish, no chips please).

Don't forget to bring your own dinner-ware (paper-ware provided)

PREVIOUS MEETINGS PICS

Photos by ... John Shupe K7DJO











QRM from Gil







Gil Leonard NG7IL

Happy Fathers Day!

OK, a bit early but you can re-read it on the 21st. I hope you all have some great plans set up with your families.

Speaking of great plans, Field Day is approaching fast. Those of you that were able to attend the May meeting got a great insight into what goes on. Stan, WOKP, did a fine job bringing field day to life for both the experienced and the new ham. Field day has something for everyone whether or not they are interested in operating radios. The slide show prepared by Val, K7HCP, showed that.

Set up for field day will begin on Saturday morning at 9:00am June 27th. Everyone that would like to help put the W7SU station on the air should join us. Official operation will begin promptly at 12:00pm local time and continue for the next 24 hours. There will be lots of opportunity to participate at whatever level you are comfortable with. If you would like to try your hand at SSB, I can guarantee a contact and control operators will be there so license class will not be an issue. Even a non-licensed individual is welcome to get on the air and make contacts.

There will be plenty of other activities to enjoy at the park. There is a playground for your kids or grandchildren. Overnight camping will be allowed for those that are interested. Campers can set up in the grass area east of the fence. Small tents are welcome on the grass. Around 5:00pm we will start with the "feedline". Bring your favorite side dish to share and enjoy hamburgers and hot dogs with some really tasty favorite side dishes. Musically inclined? Bring your instrument. You never know when a "jam session" might flare up. Got questions on your mind? What better opportunity to sit down and get some insight from your fellow ham. The best part is just having a relaxing day to get to know everyone better.

Of course there will be wrapping up the event on Sunday afternoon. Any help is greatly appreciated. Many hands make short work definitely applies here. This is a great way to learn about how to care for your feedlines and antennas.

As a bonus, I would like to set up some demo stations. I would like volunteers to set up demo stations for the following areas:

APRS, PSK31, Digital FM, Satellite comms, QRP, UAV's,

These stations can operate Class B, C or E but will not be counted in the W7SU 2A class. This last year has been geared toward the new operator getting on the air. I think these demos would be a great way to further demonstrate the exciting world of amateur radio. Anyone who would like to demonstrate your skills or show off your station, please contact me (Gil - NG7IL, ng7il@arrl.net).

Remember Field Day, June 27-28, 2015 at the Marriott-Slatterville. Directions and address can be found on the OARC website. www.ogdenarc.org

Bring your spouse and kids. Stop by for an hour or spend the weekend. I hope to see you all there.

73 de Gil

NG7IL

OARC COMING EVENTS

SOUND CLUB

ARRL Field Day Event ... details NEW

Sat 27 June to Sun 28 June 2015

Utah HamFest 2015 (Ruby's Inn) ... details NEW!

Friday 31 July—Sunday 02 August 2015

Next VE Test Session NEW!

Wed 07 October 2015

CLUB NEWS

YAESU, They're Here!!

Yes, the new repeaters have arrived. After what seemed like years the new repeaters have been delivered and the failing 146.820 MHz repeater is back on the air. I just wanted to share a couple of thoughts concerning the new units.

FIRST, these repeaters will work with all existing analog FM radios you currently own. Don't feel like you are forced into buying new equipment just to use the new units. There will be a couple of unique characteristics you will want to be aware of and some minor programming changes that will affect some users.

Second, these repeaters will all be in operation very soon for the enjoyment and benefit of all amateur radio operators within their range. I encourage everyone to make use of them.

A couple changes I would recommend to existing users. If you have not programmed the PL tone into your radios for the received signals from the repeater (CTCSS on most radios), I strongly encourage you to do so. All the W7SU transmit this tone for your benefit and the new ones will also.

You already know you must transmit the correct PL tone to open up the repeater and have it repeat your signal. By programming your radio to listen for the repeater output tone you will eliminate all other interference from your received audio. The biggest difference with using this is that you will need to pay attention to your radio to make sure the frequency is clear before you transmit (standard radio courtesy anyway). Most radios I have seen use either a light or a signal strength meter to indicate the frequency is busy.

The reason to make this programming change is so you will not be bothered by the digital noise transmitted by users using the repeater in digital mode. You will still receive all analog FM signals from the repeater. Your "busy" or "signal strength" meter will tell you if the repeater is in operation or available.

Please note: if the repeater is in operation in digital mode and you need to break into the repeater for any reason, your analog radio will still work just fine. Wait for a pause in the operation and announce your callsign as you normally would. All analog and digital users listening will hear you! In addition, I encourage all users to allow a slight pause before responding to the other station you are talking with to allow for such "breaks". It is proper repeater courtesy that should be followed on any repeater system. I am guilty of not waiting too.

To get full benefit of the repeater capabilities you may want to consider a compatible radio. Currently only Yaesu C4FM radios are compatible digitally. Others may be on the market soon.

This year at field day we are planning to have on display one of the new digital repeaters and also a compatible mobile unit that you may try and inspect for yourself.

I am really excited to have the new repeaters here. They will be installed as replacement for our existing aging repeaters and will work exactly the same as before with the exception that they will also support digital FM signals too. If you have any questions please track me down at field day or send me an email and I will do my best to answer your questions.

See you at field day,

73 de Gil

NG7IL ng7il@arrl.net

CLUB NEWS

Golden Spike Special Event

OARC received the following letter from the National Park Service thanking us for our participation in the event again this year.

Way to go team!



United States Department of the Interior

NATIONAL PARK SERVICE Golden Spike National Historic Site P.O. Box 897 Brigham City, Utah 84302



K18 (FOLA)

May 31, 2015

Ogden Amateur Radio club PO Box 3353 Ogden, UT 84409

Dear Participants:

On behalf of Golden Spike National Historic Site and the Golden Spike Association, I would like to thank you for your support of our recent 146th Anniversary celebration. An estimated 840 visitors attended the event this year.

The May 10th event is one of the biggest and most important days of the visitor season. Please extend my appreciation and thanks to all those who participated. Although your club was unable to attend the actual event this year the broadcasting you do from the site remains a great way to advertise the event. Your contribution to the success of this event is greatly appreciated. It would not be possible without the generous support your organization provided.

Sincerely,

David Kilton

Park Ranger Interpretation

CLUB NEWS

Congratulations to the following new Hams

Brian Ekstrom KB7VUU Extra

Jason Nelsen W7JKN Extra

Neal Sawyer KG7HYP General

Paul Anderson KG7UHW Tech

Bryce Buckley KG7UHT Tech

Lynn Crook KG7UHX Tech

Kasandra Hyde KG7UHU Tech

Tammy Karras KG7UHY Tech

Trevor Roberts KG7UHV Tech

Stephanie Toney KG7UHZ Tech

Shawn Tuttle KG7UHS Tech

CLUB NEWS Unclaimed Club Badges

John K7DJO our club treasurer is worried about several of you that have not picked up your new pre-paid OARC club badge. Your badge doesn't look quite like this one because it has your call sign and your name on it but we are quite sure you will enjoy yours just the same. You can claim your badge at any future club function, meeting, activity or event or contact our club badge czar John

K7DJO.



- KE7VVT, John
- KF7HNU, Ralph
- KG7IHA, Tom
- KG7KFD Tony
- KG7LIG, Andrea

- KD7RPT, Sparky
- KG7QNR, Marcie



Club Swapmeet



"SALE" or "WANTED" ITEMS NEEDED

OARC's O-bay (On-Line Swap-Meet) items needed for the web site...

Visit http://www.ogdenarc.org/ then click on **Obay-Swap.**

FEATURED ITEMS

ITEM #162

WANTED to BUY:

Tube type radios operational or not, 11 Mtr (CB) included.

PRICE: \$ (TBD)

CONTACT: Rod KC7VKZ, 801-821-6410

ITEM #163

WANTED to BUY:

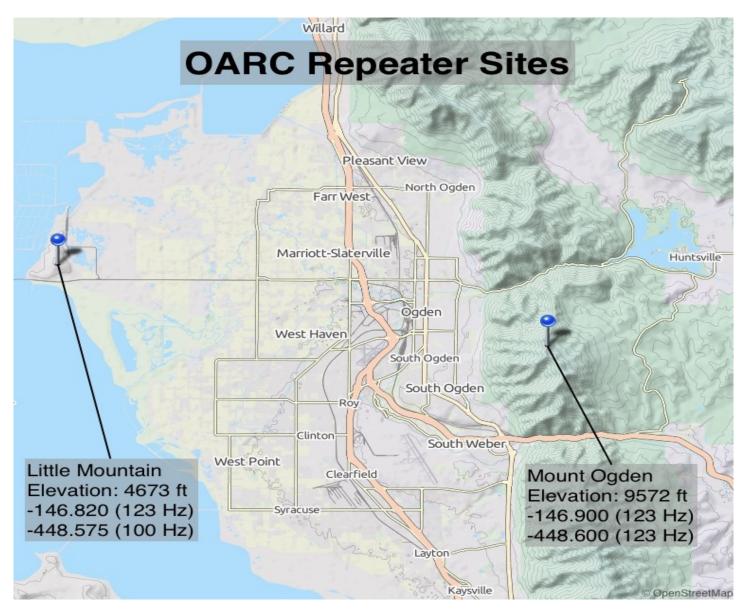
CW KEY: I would like to buy a simple CW key.

PRICE: \$ (TBD)

CONTACT: Andrew Schneider, N7EBG, 801-529-3033,

andrew@tklcorp.com

CLUB REPEATER NEWS









Mike Fullmer KZ70

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

CLUB REPEATER NEWS

Little Mountain Repeater Site Repairs

Here are some pics of me fixing the solar panels at little mountain a few days ago, with a net on my head to protect from "no-see-ums" the tiny pesky little biting insect that comes in the millions near the Great Salt Lake, so it was a must this day to wear the head net.

73, Scott Willis KD7EKO





More to come ... following the next 3 pages of commercials.

Please stay tuned.

OARC YAHOO GROUP



Did you know that OARC has a Yahoo Group?

We occasionally communicate with our OARC members via the Yahoo Group. Receive notices regarding upcoming club meetings and future e-newsletter release notices and much more like CHAT items of interest.

You can also send/receive notices to/from other group members yourself.

It's easy to sign up...

Just click on the **Join Now!** icon at the top of the club website home page and then follow the Yahoo Group instructions to create yourself a user ID and password.

Club Badges

OARC Club badges are available for all licensed club members.

The cost is \$10.00 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 \$10.00 in advance for each badge ordered and specify Call Sign and First Name. Contact webmaster or any club officer via email or contact the club treasurer at the next club meeting.

For additional information see club website left side menu and click "Join" to fill out a club application form to order a club badge.

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.

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

THANK YOU FOR YOUR SUPPORT

Join OARC

Renew your membership now!

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.

Joining is easy. Come to a club meeting or fill out an application form from the club website (click "Join" from the left side main menu). Instructions for mailing on the form.

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.



FCC Chairman, Lawmakers Agree to Scale Back Field Office Shutdowns

Leaders of the US House Energy and Commerce Committee have reached agreement with FCC Chairman Tom Wheeler to amend the Commission's plans -- announced in March -- to close a number of FCC field offices. Under the revised plan, the FCC will keep 15 of its 24 field offices open. According to a Committee media release, the plan would "ensure better rapid response capabilities for the West, provide a mechanism for escalating interference complaints, improve enforcement of the FCC's rules against pirate radio operators, and prevent the Commission from transferring field office jobs to FCC Headquarters." The FCC had been under pressure from lawmakers and others to step back from its plan to shutter the field offices.

Letters to Members of Congress Offer Biggest Boost to Amateur Radio Parity Act

ARRL President Kay Craigie, N3KN, has told Section Mangers that, while promotion and positive publicity about the Amateur Radio Parity Act (H.R. 1301) are always helpful, the most useful action radio amateurs can take is to contact their members of Congress, urging them to sign on as cosponsors. As of June 9, 72 members of the US House in both parties were listed as cosponsors of the proposed legislation, which would direct the FCC to extend its rules relating to reasonable accommodation of Amateur Service communications to private land-use restrictions. Craigie told the SMs that the grassroots campaign supporting H.R. 1301 needs more letters.

GUEST ARTICLE

by KB6NU

Dayton was a Blast this Year

A couple of weeks ago, I made my annual pilgrimmage to Dayton for the 2015 Hamvention. This year, I had even more fun than in the past, and that's saying a lot.

I started Dayton 2015 on Thursday by attending the QRP-ARCI's Four Days in May (http://www.qrparci.org/fdim/) seminar. George Dobbs, G3RJV, gave a very nice talk that not only talked about circuits, but also the people he's met over the years and the places he's been. Paul, MOXPD, gave an interesting talk on crystal filters and using an Arduino to control a QRP rig. The final talk, by Glen, KW5GP, was also about using an Arduino to control a QRP rig. Other talks covered transmission lines and SWR and adventures in PCB making. I learned something in every single one.

That evening, I participated in Vendor's Night. I sold quite a few copies of my CW Geek's Guide to Having Fun with Morse Code and gave out quite a few "I'm a CW Geek" buttons and "Hams Obey Ohm's Law" stickers.

Friday and Saturday were all about the Hamvention. As far as new products go, there were a couple of interesting announcements. Elecraft introduced the K3S, an updated and upgraded K3 HF Transceiver, and FlexRadio introduced the Maestro, a "front end" with knobs, dials, and LCD screen for their software-driven radios. Apparently, hams like knobs and dials after all.

It seemed to me that there were more people at this year's Hamvention. There were certainly more sellers out in the flea market. And deals were to be had. I picked up a Bencher BY-1 for only \$50. I also found a Hallicrafters HA-1 T.O. Keyer (http://www.ai4fr.com/main/page_ham_radio_hallicrafters_ha1.html), which I believe to be the first commercially-available electronic keyer. Produced in the 1960s, it uses tubes to generate dots and dashes.

Dayton usually has a great lineup of forums, but aside from perhaps the TAPR forum, the Antennas forum, and maybe the ATV forum, none of them really called to me. Also, I was really busy talking to people I know, meeting readers, and trying to get the dealers to carry my books, so I didn't get to a single one.

Being the CW geek that I am, I'm hoping to hold a CW forum at next year's Hamvention. I've already contacted the forum people, and while they haven't committed to giving me time, I did get a very positive response. C U THR?

ANNOUNCEMENTS

Next Club Meeting:

3rd Saturday of each Month

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

Meeting/Activity:

See notices above

Talk-in: -146.82 (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

Weber County Sheriff Office Training Room 712 W 12th Street Ogden Utah

Contact: VE Liaison:

Rick Morrison W7RIK (Liaison)

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

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.

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 repeater 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

ARRL Field Day is held on the last full weekend of June every year.

Location may vary each year so watch this notice for details as time draws near.

See you there.

| OARC REPEATERS | | | | | |
|----------------|----------------|-------|------------------------------|--|--|
| | | | | | |
| FREQ | CLUB | TONE | LOCATION | | |
| | | | | | |
| 146.900- | OARC | 123.0 | Mt Ogden | | |
| 448.600- | OARC | 123.0 | Mt Ogden | | |
| | | | | | |
| 146.820- | OARC "Talk-in" | 123.0 | Little Mtn (w/auto patch) | | |
| 448.575- | OARC | 100.0 | Little Mtn (w/auto patch) | | |

| OTHER AREA REPEATERS | | | | |
|----------------------|-----------|----------|-----------------|--|
| FREQ | CLUB | TON F | LOCATION | |
| 146.620- | UARC | none | Farnsworth Pk | |
| 147.120+ | UARC | 100.0 | Farnsworth Pk | |
| 449.100- | UARC | 146.2 | Farnsworth Pk | |
| 449.500- | UARC | 100.0 | Farnsworth Pk | |
| 147.040+ | DCARC | 123.0 | Antelope Isl | |
| 447.200- | DCARC | 127.3 | Antelope Isl | |
| 449.925- | DCARC | 100.0 | No Salt Lake | |
| 145.290- | GSARC | 123.0 | Brigham City | |
| 145.430- | GSARC | 123.0 | Brigham City | |
| 147.220+ | GSARC | 123.0 | Brigham City | |
| 448.300- | GSARC | 123.0 | Brigham City | |
| 146.640- | BARC | none | Logan | |
| 146.720- | BARC | 103.5 | Mt Logan | |
| 147.260+ | BARC | 103.5 | Promontory Pt | |
| 449.625- | BARC | 103.5 | Mt Logan | |
| 145.250- | WSU | 123.0 | * coming soon | |
| 449.250- | WSU | 123.0 | * coming soon | |
| 145.490- | K7HEN | 123.0 | Promontory Pt | |
| 146.920- | N7TOP | 123.0 | Promontory Pt | |
| 449.775- | N7TOP | 123.0 | Promontory Pt | |
| 147.100+ | Morgan | 123.0 | Morgan Co | |
| 448.825- | IRLP/Echo | 123.0 | Clearfield City | |
| 449.950- | IRLP | 123.0 | Clearfield City | |
| 449.425- | IRLP | 100.0 | Nelson Peak | |
| 147.360+ | Summit Co | 100.0 | Lewis Peak | |

AREA CLUB MEETINGS & WEB SITES

| CLUD | WED CITE | DATE/TIME | LOCATION |
|-------------|---------------------------------|-----------------------------------|---|
| CLUB | WEB SITE | DATE/TIME | LOCATION |
| OgdenARC | ogdenarc.org | 3 rd Saturday 09:00 am | Check OARC web site |
| WC ARES | ogdenarc.org/ | 2 nd Thursday 06:30 pm | Weber Co. Library |
| | join.html#ares | | Ogden Utah |
| WC Sheriff | | 1 st Saturday 10:00 am | Weber Co. Sheriff Complex |
| Comm-O | | | 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 | Last Wednesday 8:30pm | Clearfield City Hall |
| | /ares.htm/ | | 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 |
| | noutares, | | Logan Utah |
| Uarc | xmission.com | 1 st Thursday 7:30 pm | UofU EMC Bldg Room 101 |
| | /~uarc/ | | Salt Lake City Utah |
| GSarc | Ubetarc.org | Check Website | Check Website |
| | | rd | |
| Utah DX | udxa.org | 3 rd Wednesday | check web page for details Salt Lake City area |
| Association | | check web page for details | · |
| UvhfS | ussc.com | Each Tuesday 8:00 pm | Weekly 2 meter net |
| | /~uvhfs/ | (refer to web site) | (no eye ball meetings) |
| WDArc | westdesertarc.org/ | 1 st Tuesday 7:00 pm | Tooele County Courthouse Tooele Utah |
| WsuArc | https:groups.googl | 3 rd Thursday 5:30 pm | WSU Blding #4 Room ? |
| | e.com/forum/#! forum/wsuarc | | Ogden Utah |

| 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 @ 7:30 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 @ 8:00 PM | Weber ARES | 448.600 - 123.0 | | | |
| Tuesday @ 8:00 PM | VHF Society Swap | 147.120 + 100.0 | | | |
| Tuesday @ 9:00 PM | Bridgerland ARC | 147.260 + 103.5 | | | |
| Wednesday @ 8:00 PM | GS ARC | 145.290-, 145.430-, 448.300- (all 123.0) | | | |
| Wednesday @ 8:30 PM | CSERG | 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 @ 6:30 PM | Davis Co Elmers Net | 147.040 + 123.0 New Hams | | | |
| Thursday @ 8:00 PM | Weber State ARC | 146.820 - 123.0 (coming soon) | | | |
| Thursday @ 8:00PM | State RACES VHF/IRLP | 145.490 - 123.0, 146.680 - 123.0 3 rd Thursday - even months only | | | |
| Thursday @ 8:30 PM | Davis ARES | 147.420 = simplex | | | |
| Thursday @ 9:00PM | Wasatch Back Net | 147.360 + 100.0 | | | |
| | | | | | |

RACES State HF

QCWA net HF

3.920 Mhz HF LSB

3rd Saturday – odd months only 7.272 Mhz HF LSB

Saturday @ 8:00AM mst

Saturday @ 11:00AM mst

OARC OFFICERS

OTHER CLUB APPOINTMENTS

President: Gil Leonard NG7IL VE Liaison: Richard Morrison W7RIK

Jason Miles KE7IET (IT)

Vice Pres: Jason Miles KE7IET

Mike Taylor KE7NQH

NL Editor: Val Campbell K7HCP

Repeater Engineers: Mike Fullmer KZ7O

Secretary: Larry Griffin AD7GL Scott Willis KD7EKO

Treasurer: John Shupe K7DJO Photographer: John Shupe K7DJO

Program Director: QSL Manager: John Shupe K7DJO

Pete Heisig WB6WGS

Historian/Librarian: Kent Gardner

Activity Director: WA7AHY

Equipment Manager: Val Campbell K7HCP

"WATTS NEWS" e-Magazine

Club Call Sign Trustee: Larry Griffin AD7GL

Advisors: Stan Sjol W0KP

<u>"OARC" web site</u> Mike Fullmer KZ7O

Kent Gardner WA7AHY

Webmaster: Val Campbell K7HCP Kim Owen KO7U

Larry Griffin AD7GL