



# WATTS NEWS



## The Best of Amateur Radio

*Welcome to the OARC e-Magazine*

[www.OgdenArc.org](http://www.OgdenArc.org)

**MAY 2011**

Next Club Meeting/Activity

**3rd Saturday 21 May 2011**

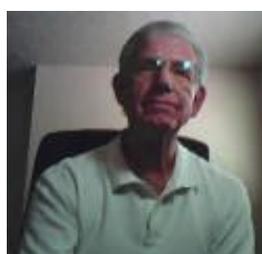
Topic: Golden Spike review & Field Day prep



Kim Owen K07U  
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Vice President



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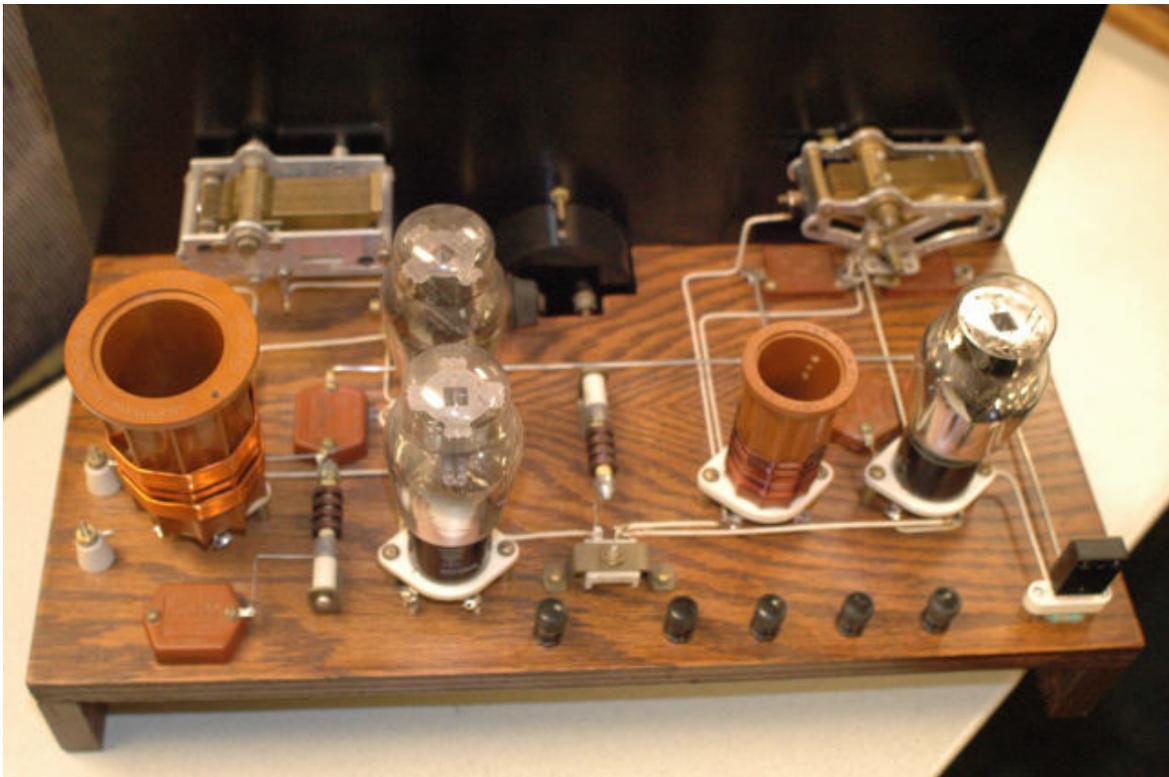


Val Campbell K7HCP  
Webmaster/NL Editor

# PREVIOUS CLUB MEETINGS

Saturday 16 April 2011

## QRP & Home Brew - Show & Tell





*K7DJO Photo*



*K7DJO Photo*









*K7DJO Photo*



*K7DJO Photo*



*K7DJO Photo*

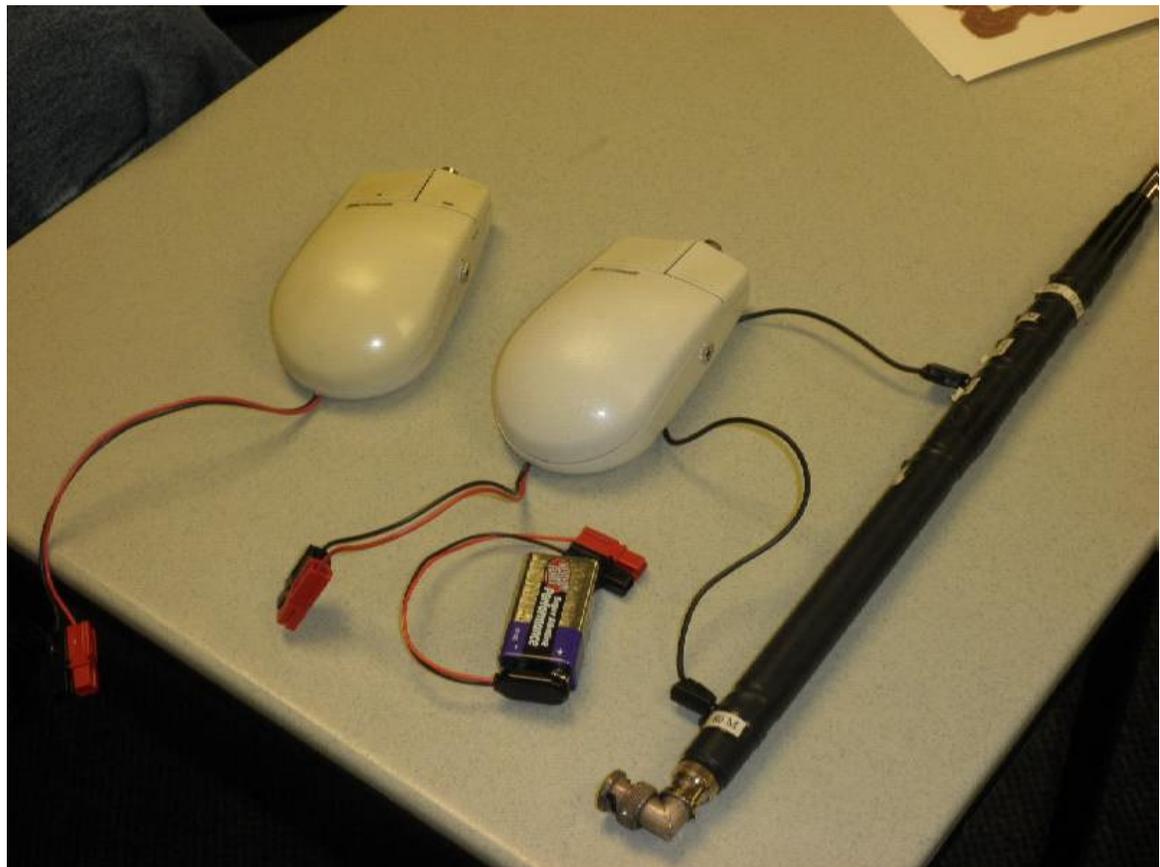


*K7DJO Photo*



*K7DJO Photo*











## NEXT CLUB MEETING

**When:** 3rd Saturday 21 May 2011

**Time:** 09:00 AM

**Location:** Riverdale Fire Station

**Topic:** Golden Spike review & Field Day prep

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### "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**.

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## FROM KIM'S SHACK



Kim Owen KOTU - President

CQ ALL Members and Friends of OARC

I hope everyone enjoyed spring last Tuesday (hi hi). Summer is almost here.

The Golden Spike Special Event 2011 is "D O N E"!

It was fun, we had some problems and I think I learned a couple of things.

For club meeting this month I would like to invite those who participated in the Golden Spike Event to take a few minutes and share some of their experiences. Bring your photos and your best stories to



From Kim's Shack.....

share.

The second part of our meeting I want to plan our Field-day next month. This year we will be at a new location. The OARC board has identified a good location. Is there a new mode or technology that you'd like to try? Come with your ideas!

For now,  
73 de Kim/KOTU

# HOBBY NEWS

## FCC Seeks to Raise the Fee for Vanity Call Signs

ARRL 05/03/2011

The FCC released a *Notice of Proposed Rulemaking* ([NPRM](#)) on May 3, seeking to raise the fee for Amateur Radio vanity call signs. Currently, a vanity call sign costs \$13.30 and is good for 10 years; the new fee, if the FCC plan goes through, will go up to \$14.20 for 10 years, an increase of 90 cents. The FCC is authorized by the *Communications Act of 1934 (as amended)* to collect vanity call sign fees to recover the costs associated with that program. The vanity call sign regulatory fee is payable not only when applying for a new vanity call sign, but also upon renewing a vanity call sign for a new term. Instructions on [how to comment](#) on this *NPRM* are available on the FCC Web site.

The vanity call sign fee has fluctuated over the 14 years of the current program -- from a low of \$11.70 in 2007 to a high of \$70 (as first proposed in the FCC's 1994 *Report and Order*). In 2007, the Commission lowered the fee from \$20.80 to \$11.70. The FCC said it anticipates some 14,600 Amateur Radio vanity call sign "payment units" or applications during the next fiscal year, collecting \$207,320 in fees from the program.

### Vanity Fee Due for New, Renewal Applications

The vanity call sign regulatory fee is payable not only when applying for a new vanity call sign, but also upon renewing a vanity call sign for a new term. The first vanity call sign licenses issued under the current Amateur Radio vanity call sign program that began in 1996 came up for renewal five years ago.

Those holding vanity call signs issued prior to 1996 are exempt from having to pay the vanity call sign regulatory fee at renewal, however. That's because Congress did not authorize the FCC to collect regulatory fees until 1993. Such "heritage" vanity call sign holders do not appear as vanity licensees in the FCC Amateur Radio database.

Amateur Radio licensees may file for renewal only within 90 days of their license expiration date. All radio amateurs must have an FCC Registration Number (FRN) before filing any application with the Commission. Applicants can obtain an FRN by going to the [ULS](#) and clicking on the "New Users Register" link. You must supply your Social Security Number to obtain an FRN.

## Source of Aluminum Tubing for Hombrew Antennas

By Kent Gardner, WA7AHY

I am always looking for aluminum for antennas and copper wire for grounding etc so thought I could find some at Smith and Edwards. A quick question to the yard attendant put cold water on finding anything outside. In the last several years the cost of copper and aluminum have been very high so they had gone through everything and sold all they had. Not wanting to waste the trip out I went inside to the hardware department and, lo and behold, they had a variety of aluminum stock. The racks are almost all the way back to the military surplus area. Look for Isle 42 and go North to the end. They have other stuff there, but I will list the most useable below. The successive sizes of aluminum tubing were designed for a smaller size to fit inside the next larger.

### Aluminum tubing

1 1/4" x 1/16"	8' = \$20.49
	6' = 15.99
1" x 1/16"	8' = 13.49
	6' = 10.99
7/8" x 1/16"	8' = 12.49
	6' = 10.49
3/4" x 1/16"	8' = 10.99
	6' = 8.99

### Aluminum square tube

1" x 1/16"	8' = 17.99
	6' = 13.49

### Anadized square tube

1/4" square	75 cents per foot
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They have assorted angle too, both aluminum and steel.

I am building a three element beam from the Antenna Handbook. It is a "proof of concept" effort. I am using the 1/4" anadized aluminum tubing for the director and relector. Both are one piece each without splices on a 2"x2"x8' wooden boom. I had to go to the round aluminum tubing for the driven element since each half needs to be insulated in the middle. The 1/4" tubing didn't lend itself to a strong center connection scheme. More on my progress later.

TNX Kent WA7AHY

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## FEATURE ARTICLE

# Of Pheasants and Beacons

By Kent Gardner, WA7AHY

It all started during a trip to visit my son in Albuquerque. To keep us entertained during the long drive, my wife Lauralee, checked out a Book on Tape (really CDs) about birdwatchers and their "Big Year". It told how four intrepid bird watchers personally witnessed and identified as many birds on the North American continent in one year as possible. There was no prize other than the recognition of others and bragging rights.

I was very enthused over the idea of me trying that during 2010. I made up a book where I listed the birds that I identified. I have a great bird feeder out on our upstairs deck and got a good start just from that. A great place to visit, of course was the Bear River Migratory Bird Refuge, but the problem was that a bridge was being replaced next to the visitor's center so we had to go one exit farther north to the Golden Spike/ATK exit and backtrack on 2600 South. It was then that a beautiful male pheasant ran across the road in front of the van. I entered him in my log after the American Kestrel hawk that we had just seen at the exit a few minutes before.

Right after seeing the pheasant is when we came upon what looked like a very long dipole antenna coming out of a small white radio shack. I, of course, stopped to check it out. The sign read:



Having been an aviation and nautical beacon chaser in the Very Low Frequency Band (VLF), I immediately put two and two together and figured that it was the VLF beacon for the Brigham City Airport. I had logged the beacon from South Ogden several years earlier when I gave a presentation at the Ogden Amateur Radio Club's (OARC) hamfest entitled "Frequencies Below 500 KHz. I had also logged another beacon from Tooele, Utah at that same time. I took a few pictures and continued on with the thought that I would write an article for the newsletter someday.

When driving to and from the Golden Spike Special Events Station this past weekend, my idea for writing the article was again brought to the forefront.

First of all, what I called VLF is technically incorrect. The Brigham City beacon (Morse code identifier BMC) is at 294 KHz. According to the chart below it is in the Low Frequency (LF) band. A lot of people group the lower frequencies into a general VLF category. The Tooele beacon (identifier TVY); however, is at 371 KHz so it is in the Medium Frequency (MF) band.

	<b>Designation</b>	<b>Frequency</b>	<b>Wavelength</b>
<b>ELF</b>	extremely low frequency	3Hz to 30Hz	100'000km to 10'000 km
<b>SLF</b>	superlow frequency	30Hz to 300Hz	10'000km to 1'000km
<b>ULF</b>	ultralow frequency	300Hz to 3000Hz	1'000km to 100km
<b>VLF</b>	very low frequency	3kHz to 30kHz	100km to 10km
<b>LF</b>	low frequency	30kHz to 300kHz	10km to 1km
<b>MF</b>	medium frequency	300kHz to 3000kHz	1km to 100m
<b>HF</b>	high frequency	3MHz to 30MHz	100m to 10m
<b>VHF</b>	very high frequency	30MHz to 300MHz	10m to 1m
<b>UHF</b>	ultrahigh frequency	300MHz to 3000MHz	1m to 10cm
<b>SHF</b>	superhigh frequency	3GHz to 30GHz	10cm to 1cm
<b>EHF</b>	extremely high frequency	30GHz to 300GHz	1cm to 1mm

While on the subject, let me throw in the following chart to delineate the differences of the terms Long Wave (LW), (Medium Wave (MW), and Short Wave (SW) as seen on a number of all band receivers for broadcast use. The terms sometimes get mixed up with the table above.

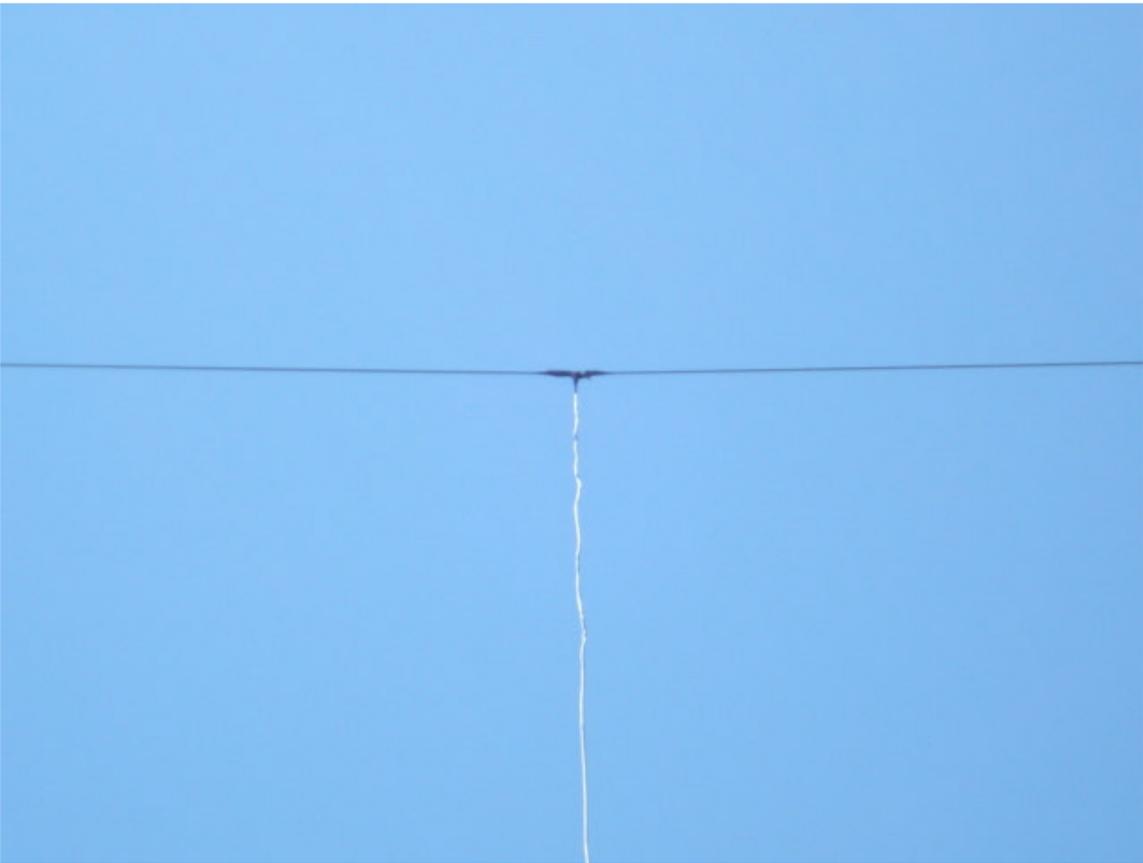
<b>Designation</b>	<b>Name</b>	<b>Frequency</b>
<b>LW</b>	long wave	153 - 279 kHz
<b>MW</b>	medium wave	531 - 1620 kHz
<b>SW</b>	short wave	2310 - 25820 kHz

This long shot shows the relationship of the radio shack to the antenna supports. I didn't think to get a good estimate on how high the poles were, but I suspect that they are at least 40 feet high. The antenna wire doesn't show in the picture very well.



The antenna that I figured was a large dipole was in reality something else.

Upon closer inspection the antenna is all one conductor not insulated in the middle. In talking with Stan Sjol WOKP, we figured that the antenna was in fact a vertical, with the long horizontal part acting as a top hat to increase the capacitance which is needed at that low of a frequency. Each leg of the horizontal part of the antenna was 120 feet long making the top hat 240 feet total.



The next picture below shows that the antenna wire is braided steel wire probably like  $\frac{1}{4}$  inch steel strand used in telephone and Cable TV cable support. The single conductor enters the shack via a glass or Plexiglas bubble.



Below is a close-up of the lightning arrestor. The air gap can be adjusted by bending the angle bends closer or farther apart. It looks like this air gap is at least one inch or so apart.



According to the warning sign, I was probably trespassing, but there was no fence and the next door farmer had to pass by it when he put his hay up. They field was cultivated right up to the shack and besides that I was curious.

So, if any of you are into low frequencies like I am or just want to spot a new species of bird, go to the bird refuge museum center on Forest Road and turn right on 2600 West and go about .4 of a mile. If you come from the other direction (off of Highway 13 which is the Golden Spike/ATK road) turn South on 2600 West and go about 2.5 miles. Some of you have amateur receivers that cover below the broadcast band. Try tuning the two stations in. They both use Modulated Continuous Wave (MCW) and transmit 25 watts. I just found a Grundig all band radio at a thrift store for \$5.00 a few weeks ago. I pulled up the whip antenna to its full height, but found the LF band used an internal iron-core loopstick and by turning the radio broadside to the transmitter I could copy the signal just fine as I could also the Tooele signal. The receiver was switched to AM, hence one could copy the Modulated CW signal without a Beat Frequency Oscillator to worry about.

I paid a visit to a hanger at the Brigham City Airport and talked to a helpful chap. His name was Mike. He showed me what the instrument looked like in one of their airplanes. The arrow always points to the station tuned in. If one were flying North from, say Ogden, the arrow would point to the site until the aircraft flew over it and then the needle would swing back the other direction. The pilot would have looked in a FAA book and would know that within a minute at 100 knots he should see the airport out of the right front windshield.

Happy low band dxing.

Kent Gardner, WA7AHY

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# ANNOUNCEMENTS

## Next Club Meeting:

**3rd Saturday 21 May 2011**

- The Ogden Amateur Radio Club meetings are usually held on the 3<sup>rd</sup> Saturday of each month.

- **Time: 09:00 AM**
- **Location: Riverdale Fire Station**
- **Topic: Golden Spike review  
& Field Day prep**
- **Talk-in: -146.90 (pl 123.0)**

Check OARC web site for details

[www.ogdenarc.org](http://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.
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## Next Weber Co VE Test Session:

**1st Wednesday 01 June 2011**

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

**Time: 05:00 PM** *Walk-ins allowed*

**Location:**

**Weber County Sheriff Office  
(Training room)  
721 W 12th Street Ogden UT**

**Contact: VE Liaison:**

**Mary Hazard** [w7ue@arrl.net](mailto:w7ue@arrl.net) (801-430-0306)

**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](http://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.

You do not need to join the club to participate with us.

## 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	ZONE	LOCATION
146.820-	OARC	123.0	Mt Ogden
448.600-	OARC	123.0	Mt Ogden
146.900-	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	ZONE	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
ATV	UARC	Ch-58	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-	UBET	123.0	Brigham City
145.430-	UBET	123.0	Thiokol
448.300-	UBET	123.0	Thiokol
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
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 County	100.0	Lewis Peak

**AREA CLUB MEETINGS & WEB SITES**

CLUB	WEB SITE	DATE/TIME	LOCATION
Ogden ARC	<a href="http://ogdenarc.org">ogdenarc.org</a>	3 <sup>rd</sup> Saturday 09:00 am	Check OARC web site ...
WC ARES	<a href="http://ogdenarc.org/join.html#ares">ogdenarc.org/join.html#ares</a>	2 <sup>nd</sup> Thursday 06:30 pm	Weber Co. Library Ogden Utah
WC Sheriff Comm-O		1 <sup>st</sup> Saturday 10:00 am	Weber Co. Sheriff Complex West 12 <sup>th</sup> Street Ogden Utah
Barc	<a href="http://barconline.org">barconline.org</a>	2 <sup>nd</sup> Saturday 10:00 am	Cache Co. Sheriffs Complex 200 North 1400 West Logan Ut
CSERG	<a href="http://dcarc.net/ares.htm/">dcarc.net/ares.htm/</a>	Last Wednesday 8:30pm	Clearfield City Hall Clearfield Utah
Dcarc	<a href="http://dcarc.net">dcarc.net</a>	2 <sup>nd</sup> Saturday 10:00 am	Davis Co. Sheriff Complex Farmington Utah
NU Ares	<a href="http://home.comcast.net/~noutares/">home.comcast.net/~noutares/</a>	3 <sup>rd</sup> Wednesday 7:00 pm	Cache Co. Sheriff Office Logan Utah
Uarc	<a href="http://xmission.com/~uarc/">xmission.com/~uarc/</a>	1 <sup>st</sup> Thursday 7:30 pm	UofU EMC Bldg Room 101 Salt Lake City Utah
Ubet	<a href="http://27meg.com/~k7ub/">27meg.com/~k7ub/</a>	4th Thursday 6:30 pm	BE-Thiokol: 24 East 100 South Brigham City Utah
Utah DX Association	<a href="http://udxa.org">udxa.org</a>	3 <sup>rd</sup> Wednesday check web page for details	check web page for details Salt Lake City area
UvhfS	<a href="http://ussc.com/~uvhfs/">ussc.com/~uvhfs/</a>	Each Tuesday 8:00 pm (refer to web site)	Weekly 2 meter net (no eye ball meetings)
WD Arc	<a href="http://westdesertarc.org/">westdesertarc.org/</a>	1 <sup>st</sup> Tuesday 7:00 pm	Tooele County Courthouse Tooele Utah
WsuArc	<a href="http://arcweber.edu">arcweber.edu</a>	3 <sup>rd</sup> Thursday 5:30 pm	WSU Blding #4 Room ? Ogden Utah

## LOCAL AREA NETS

DATE	CLUB	FREQ
Daily @ 12:30 PM mt	Utah Beehive net HF	7.272 Mhz <b>HF LSB</b>
Daily @ 07:30 PM mt	Utah Code net HF	3.570 Mhz <b>HF CW</b>
Daily @ 02:00 UTC	Utah Farm net HF	3.937 Mhz <b>HF LSB</b>
Sunday @ 8:45 AM	Ogden Old Timers HF net	7.193 Mhz <b>HF LSB</b>
Sunday @ 7:30 PM	UBET ARC	145.430 - 123.0 (training net)
Sunday @ 8:30 PM	SATERN Net	145.900 - 123.0
Sunday @ 9:00 PM	Morgan Co Net	147.060 = simplex
Sunday @ 9:00 PM	UARC Info net	146.620- no PL tone required
Monday @ 9:00 PM	2-meter SSB net	144.250 Mhz <b>2-meter USB</b>
<b>Tuesday @ 8:00 PM</b>	<b>Weber ARES</b>	<b>448.600 - 123.0</b>
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	UBET 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 <b>HF USB</b>
Wednesday @ 9:00 PM	6-meter SSB net	50.125 Mhz <b>6-meter USB</b>
Thursday @ 6:30 PM	Davis Co Elmers Net	147.040 + 123.0 <b>New Hams</b>
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 <sup>rd</sup> Thursday - even months only
Thursday @ 8:30 PM	Davis ARES	147.420 = simplex
Thursday @ 9:00PM	Wasatch Back Net	147.360 + 100.0
Saturday @ 8:00AM mst	RACES State HF	3.920 Mhz <b>HF LSB</b> 3 <sup>rd</sup> Saturday – odd months only
Saturday @ 11:00AM mst	QCWA net HF	7.272 Mhz <b>HF LSB</b>

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*OARC OFFICERS*

President: Kim Owen KO7U

Vice Pres: James Clarke KD7SWL

Secretary: Larry Griffin AD7GL

Treasurer: Jeff Anderson KD7PAW

Program Director:

Justin Doxford KE7ROQ

Activity Director:

Jamie Howell KF7LQY

*"WATTS NEWS" e-Magazine*

NL Editor: Val Campbell K7HCP

*OTHER CLUB APPOINTMENTS*

Webmaster: Val Campbell K7HCP

Historian: Kent Gardner WA7AHY

Advisor: Kent Gardner WA7AHY

Advisor: Stan Sjol WOKP

Photographer: John Shupe K7DJO

QSL Manager: John Shupe K7DJO

Equipment Manager: Val Campbell K7HCP

Repeater Engineer: Mike Fullmer KZ7O

VE Liaison: Mary Hazard W7UE

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**73 es cul de W7SU**

[www.OgdenArc.org](http://www.OgdenArc.org)