



WATTS NEWS

Welcome to the OARC Newsletter

www.OgdenArc.org

January 2005

Next Club Meeting: 3rd Saturday

January 15, 2005

Wire Antennas

OARC OFFICERS

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Vice Pres: [Mary Hazard W7UE](#)

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Treasurer: [Charles Horn KD7SST](#)

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Repeater Engr: [Mike Fullmer KZ7O](#)

Web Master: [Jim Clarke KD7SWL](#)

Club Meeting

December 18, 2004

Our December club meeting was once again held at the Health Department at 2570 Grant Ave. We had 30 people in attendance, which was fantastic for a holiday month. The usual excellent bagels and juice were there, but this month we added hot cocoa, tea and coffee so you can either warm up or wake up.

Kim-KO7U is offering free copper weld to anyone interested in it for antennas. Thanks for this generous offering Kim. If you are into do it yourself antennas, this can really save some bucks.

The HamFest is still on and it is looking likely that it will be held at the Armory where it was held last year. We are shooting to have this at the end of April. More information will be given as loose ends are tied up.

We now have nametags available for order. Thanks to Jim-KD7SWL for getting these all put together. They look great. The cost is \$8.00. There are 2 types available.... either the pin type or the magnet type. We have a sample of each. If you are interested, please let Jim know, as he will need your money up front.

We had another excellent free drawing as usual. Gifts this month included a zippered tool pouch for a grab and go kit, a ratchet strap for tying things down and a large container of wire ties to keep things tidy in the shack or mobile. We also got to give away a Repeater directory and a 2005 ARRL Handbook thanks to Mel Parkes-AC7CP.

Gary-N7ZI handed out his Upgrade corner pulled from the Sub-element G2 Pool. I look forward to gleaning a little info I was fuzzy on each time I get one of these.

Mike-KZ7O gave a great presentation on Baluns along with having several examples on hand to show. The presentation was very informative. To paraphrase what Mike taught us.....the essence of it all was - Baluns by matching the feed line to the antenna help to keep your feed line from radiating and help provide a smoother predictable radiation pattern in antenna applications. We also gleaned some helpful information about the uses of various torroids in other applications such as noise cancellation and suppression as well. Mike has the knack of being able to take a subject and make it very easy to comprehend no matter your level of expertise.

Well, that raps it up for this month's summary of the meeting. We invite all of you to make it out to our next meeting. Whether you are there for the goodies, giveaways, info, or a combination of all 3, it always great to share aspects of this unique hobby we have. As always, feel free to bring out something to show and tell, or share some information with us.

Until next month.

73 Jim Southwick N7JS

From The OM's Shack

Gary Liptrot N7ZI

Hi folks,

It's a new year and I'm excited to see what amateur radio has in store for us. The more I attend different ARC meetings around the Wasatch Front the more I realize just how big our hobby has become. The technical and operational possibilities of communicating one with another are endless. I hope that everyone takes advantage of the knowledge base that we have here in OARC to expand one's horizons.

In attending our meetings you may think that I am pushing you into one mode of operating or another. Not true. I really don't care what modes you choose to operate in but I believe that part of what we should be doing as a club is to expose you to as many different modes as we can. That way you can choose wisely which modes are right for you. Your niche may be to operate VHF/UHF on the morning and evening commutes and nothing else but have you tried grayline propagation at those times? How do you know that there isn't a HF contesting

animal lurking inside you? You may have what it takes to write the next digital mode that sets the world on fire like APRS did. You may find a passion hunting down DX countries, islands, USA counties or just local "foxes". You may find that working satellites is out of this world and your new dream is to contact a member of the ISS or Space Shuttle. It is a challenge for the OARC board to present you with a broad enough experience in ham radio to have fun and not waste money on modes of operation that don't fit you.

That said, I want to back up a bit and reiterate what a good friend and great amateur radio operator Kay Hargis (N7KH) said to me. He said, "The backbone of amateur radio is HF". I don't think that I will expound upon or add anything to this statement. He was one of my Elmers and I will just second the motion.

Tnx es 73 de n7zi Gary Liptrot

"Why buy something for ten bucks when you can make it for a hundred." JR

Biography - Secretary

Jim Southwick N7JS

Like many hams, my interest first started thanks to the CB. It was 1976 and the CB craze was in full force. I already had a walkie-talkie which amazed me, so my father purchased a Realistic TRC-30A base station and a $\frac{1}{4}$ wave antenna to peak my interest. I was hooked.

Shooting "skip" became my favorite thing to do. For those who don't know the lingo, this meant I was talking over the 150-mile limit set down by the FCC for CB. I knew it was illegal, but my 12-year-old conscious had no problem with it. Imagine that.

Unfortunately my dad also knew it was illegal after reading Part 95 one night. Not good.

Rather than be angry, his response was "Why don't you get your ham license and then you can do that and not get ME in trouble" - so we struck a deal. I pass the test-he buys the radio. So later that same year I got my Novice license thanks to an old gentleman we found by asking around (I think his name was Victor Drabble). Back then, you just copied the code at what HE thought was 5 words a minute and your "Elmer" decided if you had it down. Fortunately I had over studied the code as he was sending much faster than 5 WPM...way faster. I passed.

The next day my father took me to Lafayette Radio on Riverdale road and had some salesman talk him into buying me a brand new Kenwood TS-520S that had just hit the market and a Hygain 18/AVS vertical. Nice equipment for a punk kid but also too much for my dad to stomach just giving me - so we agreed it belonged to the family. No one in the family including my dad ever became interested in radio (not even to this day) but it stuck with me. Kept me out of a lot of trouble most likely too - which looking back was his motivation all along! I then got my General license at age 14 which suited me just fine for the next 36 years. Several months ago I decided to get my Extra class for no other reason than to just go all the way and be done with it.

I've burned through several more radios since that time, but the hobby once bitten, never seems to leave. Today I have a great wife who puts up with the dozen antennas strewn around our yard and all the holes in the side of the home. Although my occupation as a Real Estate broker has nothing to do with ham radio, it is still my favorite past time. Always probably will be.

73, Jim Southwick N7JS

*Next month stay tuned for another OARC Officer/Member Biography.
It could be you!!!*

Club News

Club Badges now available

OARC Club badges are now available for all club members and non-members also for \$8.00 each. Place your order with Jim Clarke

KD7SWL and specify pin or magnet type fastener. Please pay \$8.00 in advance for each badge ordered.

Club Repeater Auto Patch (repeat article)

The 146.90 Autopatch should be up and running any day now. In fact it might be up by club meeting this month. The phone line is now operational and we just need to connect and configure the hardware. One thing that we need help with however is the funds for the autopatch.

There is currently only \$77 in the autopatch fund. This will not last very long with a monthly bill of \$25. Many of you out there expressed a desire to have this done and now it's ready. But we need some donations to make it keep working. I propose to all that have any interest to donate one month payment of \$25. This would only take 12 people to get a years worth of support. Make the donations to the club and

be sure to mention that it is for the autopatch fund.

I know that a lot of you out there have cell phones, but remember your cell phone is only as reliable as the cell towers that they talk to. Have you tried to make a call from the middle of Ogden Canyon? You can easily get into the 90 repeater from there.

The phone patch will be an open patch available for all to use. The access codes will be announced as soon as it is on line.

If you have any questions feel free to ask.

Mike Fullmer KZ7O, Repeater Engineer

ARRL Membership (repeat article)

If you want to [join ARRL](#), our club can retain \$15 for each NEW regular or senior membership and \$2 for each RENEWAL submitted. A NEW MEMBER is defined as any individual who has never been a member of ARRL or any individual who has not retained a membership for two or more calendar years prior to the application submission. A

RENEWING MEMBER can renew at anytime, even before their current membership term expires.

If you're joining both the club and ARRL write one check payable to the club and mail both application forms to the club or contact our **Treasurer:** [Charles Horn KD7SST](#).

Upcoming Events

Weber Co VE Test Session: - **February 2, 2005**

- Time: 5:00 PM Walk-ins allowed
- Location:
WEBER CENTER
2380 Washington Blvd, Rm. 112
OGDEN, UT 84401
- Cost: \$14.00

Contact: Mary Hazard @ 801-430-0306

Silent Key Notice

It is with great regret that we acknowledge the passing of one of our wonderful club members. Emma Clariiece Anderson KB7CUB, wife of Roger Anderson N7GSZ, passed away recently.

*We are going to miss seeing you at our future club meetings.
73 & 88, KB7CUB sk...*

Shack Shorts

How many people can read hex if only you and dead people can read hex?
(Bring the answer to this quiz to the next club meeting)

User-Controlled On-Line Tuners

By Jim Southwick, N7JS

Originally published in *Monitoring Times* - July 2004 and *Popular Communications* - November 2004

Have you thought about getting a shortwave radio to listen to distant stations - whether it be broadcast, pirate radio, or ham radio? Maybe you are wanting a scanner to cover a broad range of frequencies and modes.

In theory, it sounds quite easy to purchase a radio and start listening. The problem is, though we all know the radio is only as good as the antenna system to which it is connected, we tend to forget this additional cost and hassle, yet we still hope for better than average reception. In many cases, antenna requirements can even be prohibitive depending on one's location and limitations.

If you are wanting to listen to a broad range of frequencies in various modes (AM, SSB, PM, CW, etc.), this can be a further complication - the cost can be fairly steep for sophisticated communications receivers.

The "UCOT"

Fortunately, these days, you can tryout a variety of high-end systems without having to worry about buying the radio or the antenna system - if you have a computer connected to the internet. Even a dial-up line will work fine. Welcome to the world of the "user-controlled on-line tuner" - which, for easier reference in this article, we will refer to as a "UCOT."

Essentially, with a UCOT someone has already gone through the trouble and expense of buying the receiver and antenna system along with the software to serve it up through the internet. This allows you to tune the radio in real time, as if you were sitting right in front of it.

Of course, the down side is you may have to share this radio with other users, but you will find you can often have a radio to yourself at various times throughout the day and night. The benefits are great.

Borrowing an internet term, we'll provide some background on the subject as a series of FAQs (*frequently asked questions*).

Are there many UCOTs around?

Although these public on-line systems have been around for some time in various formats, they have never really become abundant due to the fact they are expensive to set up, run and maintain. So although there are sites coming on-line now and then, many other existing sites are shutting down or have gone private. Also many of the remaining sites have gone to a pay status in order to try to recoup some of the costs of running the system.

So are there any free sites?

The good news is, there are still some long time sites offering full access to the public and, yes, they are completely free. Many of these free sites are actually superior to the paid sites as they are offered up by ham radio operators who enjoy sharing their radios and antenna systems and get a kick out of providing the service. My own site at www.jimandleah.com was started on just that premise. I will list where you can go to find other various sites later in this article.

What types of UCOTs are there?

There are various software "styles" of on-line radio systems. Some of the oldest programs have been written privately and have a "manual" feel to the software. That is, they do not provide real time feedback such as the signal strength of the received signal or graphing and chat capabilities. You basically enter the frequency and mode and then listen. However the station quality is very good at the sites that have seen using their own written software. The others, as explained below, will provide a host of supporting information to the user in real time.

What are the most popular UCOTs?

Two of the most popular public versions that provide real time feedback and are very easy to use are called Javoradio - not to be confused with the trademark Java - (<http://www.javoradio.com>) and VisualRadio (<http://www.visuairadio.de>). With few exceptions neither version requires you to download anything and will usually work as soon as you access the page. The Javoradio network consists of many radios worldwide (mainly throughout Europe) and has a very user friendly format rich with features. Javoradio has done a nice job of making this system easy to use for the on-line listener. You are able to

tune many parameters of the radio, get signal strength, access, directory of stations, and chat. The sites on Javoradio feature the Icom PCR100/1000 receivers exclusively.

Until about a year ago, the sites were actually free but have unfortunately gone to paid status. However, the cost to use the receivers is quite minimal and they also will feature a couple of free sites of their choosing that you can tune into with out paying. There are a couple of sites that feature very elaborate antenna systems that alone can make the cost of admission worth it - especially if you are into TV and FM radio Dxing.

The Visualradio public network is smaller in scope, featuring only a handful of receivers, but they are completely free (we love free!), and can accommodate any type of computer controlled radio on the serving end. This can allow for some very high quality radios, as the PCRs do have their limitations.

Visualradios offer two different formats: Java (although they are not Javoradios) and Active/X. The VisualRadio Java format basically gives you tuning capability, S Meter, and a chat room. It is quite basic compared to the feature rich format of the Javoradios. However, by downloading the free software (available on the main site or my site at jimandleah.com), one can take advantage of exclusive advanced features such as a signal vs. time graph, DX cluster, and a sophisticated display spectrum. The latter allows you to view a group of signals simultaneously for a segment of the band you are listening to and then choose the signal you want by just clicking on the graph. This is not available on the Javaradios, and is a real advantage over basic scanning.

Both Visualradio and Javoradios have real time chat rooms so users can converse and share information while using the tuners. The chat window is a great place to meet people with common interests in online listening.

Let's move on to the actual operation of a UCOT once you get there.

On-line etiquette.

The first and foremost rule on any public UCOT is to ask before tuning! This is simply done by typing "May I tune?" in the chat room. Even if you think you are the only person using the radio, the owner of the radio may be using it at the time themselves. This is just a common courtesy and you will find in almost all cases the user will yield the control to you. If you experience problems with this, the owner of the UCOT will certainly want you to email them. When

the system is busy, you may enjoy just listening to what others users are tuning.

Get to know the system you are using.

Each system is unique. Some may be designed for listening to VHF and UHF. Others may be designed mainly for listening to the HF spectrum. It doesn't do anyone any good if you are tuning for WWV and the UCOT only has an antenna good for UHF. A simple inquiry in the chat window will usually get a response from those that are familiar with the system.

Often the web page will tell what you need to know about the UCOT and what it does.

What frequencies can I tune?

Since the majority of UCOTs are Icom PCR 1000s, you will be able to tune from .100-1300 MHz (cellular excluded) and use all modes (CW, FM, USB, LSB and AM). This is a lot of frequency spectrum. The type of antenna the owner has installed will be pretty obvious, depending on where you tune. Many owners have chosen to use a discone antenna which gives decent coverage of the VHF/UHF spectrum (50-1200 MHz) but really falls short on the HF spectrum (0-30 MHz).

Because I am a ham radio operator, I already had the antennas in place for the receiver. For my on-line tuner I currently use a tower mounted inverted V with a 45 foot apex the majority of time. This gives fairly broad coverage across the HF spectrum. For the higher frequencies I also feed the receiver simultaneously with a UHF/VHF yagi. This would be a disaster on transmit, but fortunately in receiving we don't have to worry about that when combining antennas.

For even better performance from this combination, you can purchase a splitter which minimizes the effects on one antenna detuning the other.

Who uses the UCOTs?

The UCOT's lend themselves to a host of purposes. Ham radio operators often use the receivers to check to see if they are being "heard" where the host site is located, and if so, test their signal strength. This is very useful for getting real time feedback of the band conditions, as well as determining one's audio quality.

Another group of users listens to the air traffic control broadcasts. Many of these broadcasts are carried on shortwave radio, so a good UCOT can pick up these signals for hundreds or thousands of miles. When combined with various sites that allow a listener to watch the progress of a

plane in real time, you basically can follow a specific plane from origin to destination, all in real time. This aspect of the hobby really grew after 9/11, with people wanting to track a loved one who was traveling.

Still others like the public service broadcasts on the VHF/UHF spectrum. Unfortunately, many of these communications have gone to a trunking or digital system that is not available on the UCOTs. Yet another group of individuals enjoy late night AM broadcast radio DX. If a site has a decent antenna for the lower part of the HF band, it will generally work quite well for AM DX.

A few Javoradio sites actually feature large antenna arrays allowing users to listen to tropospheric skip, meteor scatter, and other interesting conditions that mainly affect the VHF portions of the bands. This last group are usually people who just enjoy general listening across the bands, whether it be checking out the local FM radio stations, trying to tune into some cordless phone or baby monitors in the area (shame on you!) or just armchair shortwave listening.

My particular site has attracted a group of people who like to gather each night to tune in to the 80-meter band. Some enjoy listening to Art Bell and a group of other ham radio operators that get together on this band each nite. Since Art has retired from his late night radio show of many years during the weekdays, this allows the people who enjoyed his show to listen to him and others in a whole new context that is very relaxed and often humorous.

How can I set up my own public UCOT?

First of all, setting up a public UCOT is an expensive endeavor. Believe it or not, there are a couple of individuals who have set up tuning and transmitting capability UCOTs, but these systems are beyond the scope of this article. Even if it is just a receiver, it won't be much of a service if you start out with one that doesn't have decent reception or is very limited such as AM mode only. Word spreads fast and you will soon find your site is only good as a chat room for you and your friends. You also need decent uploading bandwidth, or your site will not be very enjoyable to listen to if it is constantly buffering on the audio.

Javoradio has the advantage of the software being free. Everybody loves free! The downside to this is that it requires a Linux as based system, which most computer users are not set up for or familiar with. If you are you're in luck! Remember, you are limited to an Icom PCR100/1000 receiver

only with this software, so you will need that before you even get started. You can go to <http://www.javoradio.com> for more details about what is involved and how you can get started.

Visualradio has the advantage of working with the Windows as format and practically any type of ham radio/receiver that can be controlled by computer. Many people (especially hams) already have radios that can connect to their computer. The downside is, the company no longer currently sells the software for the basic amateur. Instead the software is marketed for commercial users, so although the sophistication of the commercial release is well beyond what most basic users would ever need, so is the price. However, as I write this article, I am told they are considering offering it again to the "amateur" user at a substantially reduced price.

I have been a VisualRadio UCOT for over two years now and have found the software very flexible and feature rich. The Java format is very straightforward and easy to use for anyone. However, by connecting to the active/x format, one discovers a whole new world in online radio features. You can go to <http://www.visuairadio.de> for more information on this format. One can also view this format on my site at <http://www.jimandleah.com>

A third format that is being used is the RATS format by Kingsmith Software (<http://www.kingsmith-software.com>) This is another feature rich format that can be served up utilizing Windows Net Meeting. The software is inexpensive. The downside is that accessing the remote radio is not as easy as straightforward as the other two formats as only one person can use it at a time. Advantages are you can use various radios in the Windows format and set up is quite inexpensive. In addition, there is hardly any delay of the audio. An exclusive site located in Hong Kong has set one up under this format at <http://vr2hf.tripod.com>.

Just recently, an independent site has sprung up for the general public. This is apparently utilizing sophisticated software (including a band scope) and the software is offered for free if you host your site with him. The site is located in Salt Lake City, Utah The software is currently written to run on Kenwood computer capable radios, but the developer has plans to expand to other manufacturers. It also is built on the Windows OS interface. You can access this site at <http://www.smeter.net>.

Last but not least, some who are into writing their own software have chosen to do just that. One of the oldest sites that is self written is still available

at <http://www.chilton.com> and has been operating since 1995.

There is a fairly complete list of most of the UCOTs in existence at the DX Zone site <http://www.dxzone.com/catalog> >>>

>>> [Internet and Radio/Online Receivers](#).

Setting up the audio.

The other aspect of UCOTs is, of course, providing the audio. This is actually a big consideration, because it can require large upload bandwidth if you are going to be able to serve up decent sounding audio to the most people possible at the same time. There are various encoding styles one can choose from but suffice it to say, a full time high-speed connection is practically mandatory.

Javoradios mainly uses Real Audio as their encoder and Visualradios mainly use Window Media Encoder. Both formats are available for free from the web. I am currently able to stream simultaneously to about 25 people using Windows Media Encoder, but because I sometimes exceed this number, I also stream the audio through live365.com. This can allow practically unlimited simultaneous listenership at a very high bit rate, but also requires a monthly fee from the UCOT owner depending on how many streams one wants to provide, whether for free or for a membership fee.

If your site gets to this point, you are definitely doing this as a labor of love and you may want to at least ask for donations to try to offset the costs a little. However, realize that your outgo is going to far outweigh any money coming in. You will find if you set up your site and you work to maintain free, quality service, the rewards will be meeting a lot of great people who take almost as much pride in your UCOT as you do. You may even find someone will set up a forum if you attract a group of loyal listeners who enjoy your system. midnighthams.com was a forum that was started by a group of dedi-

cated individuals who frequented my site and continue to do so.

Last but not least, you can even go the extra mile and provide other useful services that practically guarantee people will enjoy visiting your site. One of the neatest aspects of remote monitoring I have witnessed is listeners using the on-line radio in conjunction with software to view slow scan TV (SSTV) pictures. These are pictures transmitted by hams that can be viewed with the proper software on your computer.

A UCOT lends itself to this perfectly, so I feature an automatic picture viewing system on my site that doesn't require any software on the listener end. The listener only needs to tune the radio to the SSTV signal itself (usually 14.235 kHz), and the software on my end will automatically capture the image and upload it to my site. The auto ftp upload software is generously made available free from John Benedict (KE5RS) at <http://www.ke5rs.com>. This has been a popular aspect of my site that surprisingly other online tuners have not incorporated to date.

Providing a chat area is also beneficial. Because your listeners have a lot of common ideas. Feedback is guaranteed if you choose to chat with them!

In closing ...

So whether you are interested in using a UCOT or in setting one up, you will find this is almost a hobby in itself - one that is currently a fairly well hidden secret to the general public. Their numbers are relatively few, but many UCOTs lie dormant waiting for someone to log on. It is my hope that the word will get out about how useful and fun these are both to listen to and to operate if you so choose.

Jim Southwick, N7JS

Announcements

Next Club Meeting: 3rd Saturday

- **January 15, 2005**

- Each meeting of the Ogden Amateur Radio Club is held on the 3rd Saturday of each month.
- **Time:** 9:00 AM (*snack provided*)
- **Location:**

Health Department Building Auditorium
2570 Grant Ave Ogden Utah

This is on the corner of 26th and Grant west of Washington Blvd, NE corner of the street.

Enter through the East door on the North end of the building (parking lot side).

Parking is located on the North and East side of the building.

Talk in on 146.82- (123.0) <<down.
>> temp alternate 146.90- (123.0).

- **Meeting Topics:**
 - **Wire Antennas ...**
 - **How they work**
 - **Why they are used**
 - **How to make them**

Check Oarc web page 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

- **February 2, 2005**

- Exam sessions are held in Ogden every few months, *usually* the first Wednesday in February, June, and October.
- **Time:** 5:00 PM Walk-ins allowed
- **Location:**

WEBER CENTER
2380 Washington Blvd, Rm. 112
OGDEN, UT 84401

Contact: Mary Hazard @ 801-430-0306

- **Cost:** \$14.00

Those seeking a ham license should bring two forms of ID, one of which must be a picture ID. Those seeking an upgrade should also bring a copy of their current license, any CSCE, and a picture ID.

Most calculators are allowed.

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.

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	TONE	LOCATION
146.820-	OARC	123.0	Mt Ogden
448.600-	OARC	123.0	Mt Ogden
146.900-	OARC	123.0	Little Mtn (auto patch)
448.575-	OARC	100.0	Little Mtn

OTHER AREA REPEATERS			
FREQ	CLUB	TONE	LOCATION
146.620-	UARC	none	Farnsworth Pk
449.100-	UARC	146.2	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-	RACES	123.0	Promontory Pt
146.920-	N7top	123.0	Promontory Pt
449.775-	N7top	123.0	Promontory Pt

AREA CLUB MEETINGS & WEB SITES

CLUB	WEB SITE	DATE/TIME	LOCATION
OARC	ogdenarc.org	3 rd Saturday 9:00 am	Health Dept Bld Auditorium 2570 Grant Ave Ogden Utah
WC ARES		3 rd Saturday 11:00 am	Weber Co. Sheriff Complex West 12 th Street Ogden Utah
WsuArc	arcweber.edu	3 rd Thursday 5:30 pm	WSU Blding #4 Room ? Ogden Utah
Barc	barconline.org	2 nd Saturday 10:00 am	Cache Co. Sheriffs Complex 200 North 1400 West Logan Ut
Ubet	27meg.co/k7ub	2 nd Tuesday 7:00 pm	BE-Thiokol Old Intermountain Indian School Brigham City Utah
Dcarc	dcarc.net	2 nd Saturday 10:00 am	Davis Co. Sheriff Complex Farmington Utah
Uarc	xmission.com /~uarc/	1 st Thursday 7:30 pm	UofU EMC Bldg Room 101 Salt Lake City Utah
UvhfS	ussc.com /~uvhfs/	Each Tuesday 8:00 pm (refer to web site)	Weekly 2 meter net (no eye ball meetings)

LOCAL AREA NETS

DATE	CLUB	FREQ
Daily @ 12:30 PM mst	Utah Beehive net HF	7.272 Mhz - HF
Daily @ 7:00 PM mst	Utah Farm net HF	3.937 Mhz - HF
Tuesday @ 6:30 PM	Weber ARES	448.600 - 123.0
Tuesday @ 8:00 PM	VHF Society	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 net	28.313 Mhz
Thursday @ 7:00 PM	Davis ARES	147.420 = simplex
Thursday @ 8:00 PM	Weber State ARC	146.820 - 123.0
Sunday @ 7:30 PM	UBET ARC	145.430 - 123.0 (training net)
Sunday @ 9:00 PM	Morgan	147.060 = simplex
Sunday @ 9:00 PM	UARC Info net	146.62 – no PL tone required
Thursday @ 8:00PM	RACES State VHF	145.490 - 123.0, 146.680 – 123.0 3 rd Thursday - even months only
Saturday @ 8:00AM mst	RACES State HF	3.918 Mhz - HF 3 rd Saturday – odd months only

73 es cul de W7SU

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