



# WATTS NEWS



## The Best of Amateur Radio

*Welcome to the OARC e-Magazine*

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

**NOVEMBER 2006**

Next Club Meeting

**3rd Saturday November 18, 2006; 9:00 am**

**Topic: 9/11 & Air Traffic Control by Jim Rudnicki NZ7T**



Mike Fullmer KZ7O  
President



James Clarke KD7SWL  
Vice President



Joan Fullmer N7OLZ  
Secretary



Jim Southwick N7JS  
Treasurer



Charles Horn KD7SST  
Director #1



Kent Gardner WA7AHY  
Director #2



Gary Liptrot N7ZI  
Past President - Advisor



Val Campbell K7HCP  
Webmaster/Editor

# PREVIOUS CLUB MEETING

**3rd Saturday October 21, 2006**  
**Morse Code (CW) by Gary Liptrot N7ZI**

This meeting was well attended considering that the fall weather has been especially beautiful so far this fall and this Saturday morning was no exception. It was the first indoor meeting for OARC members in several months and the topic for this meeting (as well as the presenter) was a great draw. More on that later.

James Clarke KD7SWL (Vice Pres), conducted the meeting and as usual we had Pastries and Juice available. The **Door Prize** winners this month were as follows:

- AD7AU
- KE7JDG
- WA7AHY
- N7JS

Gary Liptrot N7ZI conducted a very exciting meeting on the topic of Morse Code (CW). **Topics covered** included...

- Stories, records set,
- How to get faster in CW
- Why do CW
- CW equipment/tools such as ...



Straight Key



Bug (semi-automatic key)



Paddle (used with electronic keyers)

Gary covered a brief history of communications using Telegraphy and some of the great Telegraphers such as Ted McElroy, the **WORLD'S CHAMPION RADIO TELEGRAPHER**. As a Western Union telegraph operator at age 21 he was winning code receiving contests and setting records. He set the all-time, still-unbroken official record of 75.2 words per minute in 1939 (corrected to today's 25-dot word standard, that would be 72.2 wpm).

Gary offered several tips about learning and preparing for morse code (CW) testing. Currently all Amateur Radio classes require passing a 5 wpm CW receiving test, with one notable exception, the entry level Technician class which is a code-free class license. Not many years ago, a General class license required passing a 13 wpm sending and receiving test and Amateur Extra class had a 20 wpm CW requirement. Who don't know what the future

holds but there is a proposal pending action at the FCC to remove the Amateur Radio CW requirement altogether. Some speculate that it could become law before the end of the year. Even if the CW requirement is dropped CW will continue to be a favorite mode of operation by many Hams well into the future. CW still proves to be the most effective and reliable mode of radio communication, especially when conditions are less than optimal.

Gary suggests the following tips for learning and testing CW:

- Practice the way you plan to operate and test
  - Practice with pencil and paper (as opposed to using a keyboard or copying in your head)
  - Use a key or paddle but don't switch between
- Practice at 10 wpm, even for a 5 wpm test (Increase spacing between characters to adjust speed)

Jay Leno had a live segment on the Tonight Show May 15, 2005 where they had a text-messaging vs. morse code speed contest. The phrase they had to send was ...

["I just saved a ton of money on my car insurance".](#)

Of course, Morse won. Here are two comments posted afterwards on the internet regarding that event.

2. I doubt most people realize just how much Morse is still used today. The best and oldest keyers can pound away at over 80WPM, typically the ones taught by the US Army Signal Core, those guys can key in their sleep, literally. I know of at least 3 guys who have keys mounted to the sides of their drivers seat in the car and communicate via morse while driving! Text messaging sucks. CW forever.
3. CW is actually becoming more popular on the amateur radio bands. Check the statistics on recent CW and SSB contests. It is my favorite mode, and I really enjoy the different "language."

Below are several CW operating suggestions and techniques that you might be interested in learning if you are not already an experienced CW operator. Tune your HF (shortwave) radio to 14.000 - 14.150 Mhz (20 meters) during day time and 7.000 - 7.150 Mhz (40 meters) or 3.500 - 3.750 Mhz (80 meters) night time and listen in to what you have been missing out on.

Enjoy --- See you on CW!

73, Val Campbell K7HCP

## OPERATING CW - MORSE CODE

### Morse Code (CW) Operating Tools

- Straight Key
- Semi-Automatic Key (Bug)
- IAMBIC Paddle
  - w/ external electronic keyer
  - w/ internal electronic keyer
- Memory electronic keyer

### CW Communication Signal Reports (RST)

- (R)eadability (0-5)
- (S)trength (0-9)
- (T)one (0-9)

### Amateur Radio "Q" Codes

- QRM - Interference (man made)
- QRN - Interference (nature)
- QRP - Low Power Mode
- QRT - Quit/Terminate Communication
- QSL - Confirmation
- QSO - Contact
- QST - Information
- QSY - Change Frequency
- QTH - Location (City, ST)

### CW Shorthand

- CQ = calling anyone
- DE = from
- AR = Go Ahead
- K = end of transmission (over)
- Kn = go ahead
- Agn = again
- Wx = weather
- TU = thank you
- ES = and
- C = yes
- FER = for
- Rig = station equipment
- OM = old man (any age)
- YL = young lady (any age)
- BCNU = be seeing you
- CUL = see you later
- 73 = best wishes
- 88 = love & kisses

### Typical CW QSO Format

- CQ CQ CQ de MyCallsign MyCallsign K <<< Query
- ContactCallsign de MyCallsign <<< Response
- Thank you for the call
- Your RST is 599 599
- My Name is MyName MyName
- My QTH is MyQTH MyQTH
- My Rig is .....
- So how copy?
- ContactCallsign de MyCallsign
- Ar K

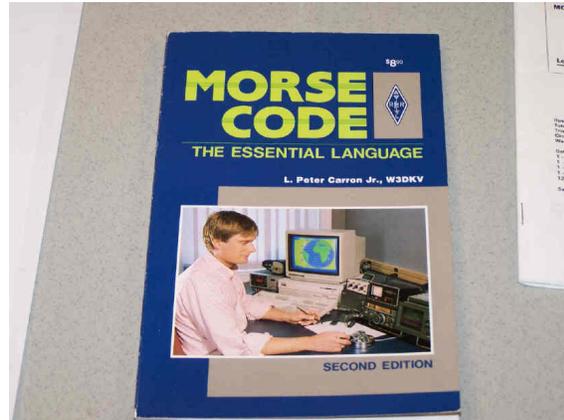
### Suggested Links

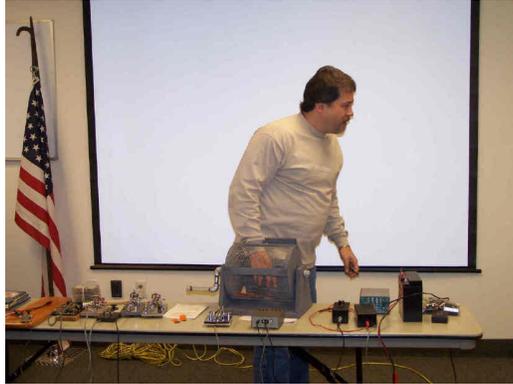
ARRL Station W1AW - <http://www.arrl.org/w1aw.html>

Morse Code and Ham radio software from Nu-Ware - - <http://www.nu-ware.com/>

---

**CLUB MEETING PICTURES GO HERE**  
(More pictures on OARC web site "Photo Gallery")





# A MESSAGE FROM OUR PRESIDENT

Mike Fullmer KZ7O



Summer is over – its antenna season! They say antenna's work better when they are installed in the winter, so get ready! Just because I am writing this on November 7 and it was 70 degrees today doesn't mean that winter is not coming.

The amateur radio fraternity is a neat thing. If you are an active Ham you can find a friend anywhere you go. I had another experience the first week of November to give evidence of this. I was in Washington DC for work that week. I know, DC is not usually a friendly place to be the week before elections, unless you have lots of money to give to some political party. But I never made it a habit wasting my money on useless things. I would rather buy a ham rig any day. Anyway, in case you have not noticed, I usually have my ham radio belt buckle on. It says "KZ7O" on it. Most people would never notice, but someone did notice while I was there.

One of the people I was working with there finally came up to me and introduced himself as KO4YC. He had seen my belt! We were instant friends. He told me about his ham radio activities and a couple of hours later, brought me pictures of his homebrew kilowatt amp for 440! That is a lot of power on 440 (70cm)! The amp is not done yet, but he is working on it.

He is a big VHF/UHF person. He worked a number of stations on meteor scatter during the last meteor shower. He has worked EME before.

For those that do not know what EME (Earth-Moon-Earth) is, it is where you use big antenna arrays and lots of power. You beam your VHF signal towards the moon during a full moon and a small amount of it bounces off the moon and comes back to earth. Another station with a big antenna array and a really good receiver hears you and you communicate. That is a long way to send your signal! So we had a nice conversation for a while. Like I said, Hams have friends everywhere! I just wish I had more time to do this kind of stuff. Amateur radio is only one of several activities that I participate in and they all take a piece of my time.

I hear I missed a good club meeting in October. I was participating in one of my other activities that day – deer hunting with my son. I enjoy CW so I missed a good meeting.

The new license class is going well. There are a few dedicated people attending every week. We should have some new licenses out of the class.

Remember to put our Christmas dinner on your calendar – Dec 16 at 6pm at Eastern Winds in South Ogden on Washington Blvd. We are giving away a 2 meter handheld – a complete one with charger and all (not like the one at the August steak fry).

That is it for this month, see you at the meeting.

Mike, KZ7O

# CLUB NEWS

## Next Club Meeting

**When:** 3rd Saturday November 18, 2006

**Time:** 09:00 AM

**Location:** Riverdale Fire Station  
(See OARC website for MAP)

**Topic/Activity:** 9/11 and Air Traffic Control by Jim Rudnicki NZ7T

- 9/11 and what the Air Traffic controllers were doing and Air Traffic control radios
- En-route air traffic control: How the radio end of it works & how we communicate over great distances
- Hearback/readbacks: One great emergency - Fun stuff that will test your ears
- How this all relates to how we hams do our work
- 9/11: Q&A
- Power Point Presentation: That morning - every aircraft in US updating every 3 minutes
- What happened that morning & what had to happen to get everyone on the deck

**Talk-in:** -146.90 (pl=123)

---

## Congratulations

To the following OARC member licensed recently at a local VE Test Session

- **Carol A. Petz - Tech Class (KE7JBO)**

Welcome to Ham radio. We hope to see you at our next club meeting.

---

## Congratulations

To the following NEW OARC members

- **Bill Keel - KE7JDG**
- **Warren Eldredge - AD7AU**

Welcome to Ham radio. We hope to see you at our next club meeting.

---

## MORE CLUB NEWS

### Ham Radio Licensing Class

Saturdays 21 October 2006 thru 25 November 2006  
(see web site for details and map)

LDS Washington Terrace East Stake & Ogden Amateur Radio Club

- 4760 South 200 East Washington Terrace (East Stake Center)  
(directly across from Bonneville High School)
- 

### Repeater Update

The Little Mt repeaters are up, but no autopatch yet. We are waiting for the surge system to arrive. Weber County is supplying it. It sounds a little different and the functions are a little different but everything other than the autopatch works. For those that like to play, the following codes are operational:

- 100 – time of day
- 200 – inside temperature
- 201 – outside temperature
- 202 – battery voltage

Mike KZ7O

---

### OARC Volunteer Positions

- **QSL Manager** - open
- **VE Liaison** - Mary Hazard W7UE
- **Historian** - Kent Gardner WA7AHY
- **Historian Assistant** - Gary Hudman KB7FMS
- **Repeater Engineer** - Mike Fullmer KZ7O
- **Repeater Committee** - Val Campbell K7HCP
- **Equipment Manager** - Val Campbell K7HCP

Please consider volunteering for one of these functions. The club officers can't do everything that needs to be done to run our club efficiently and they desperately need your help.

Please contact any club officer as soon as possible.  
Thank you in advance. Your OARC Officers

# MORE CLUB NEWS

## Club Badges

OARC Club badges are still available for all club members and non-members. The cost is \$8.00 each. You can order the badge with either a "PIN" clip or 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. See example below.



Place your order along with \$8.00 in advance for each badge ordered and specify Pin or Magnet style fastener, Call Sign and First Name.

Contact OARC Vice President James Clarke KD7SWL via email or see him at the next club meeting. See web site [www.ogdenarc.org](http://www.ogdenarc.org) "Club Officers" page.

---

## Support your Radio Club

### Join OARC and ARRL

- Membership in OARC is complimentary for remainder of 1st year licensed.
- Reduced membership dues for 1/2 year memberships.
- ARRL joins thru OARC benefits your local club without additional cost to you.
  - ARRL joins through the club will receive the new Repeater Directory valued at \$10.95 as a gift.
- ARRL renewals thru OARC also benefits your local club without additional cost to you.

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: [Jim Southwick N7JS](#)**.

# AR HOBBY NEWS

ARRL Section News - Updated: Fri, August 11, 2006

The Summer has slipped by so fast! I would like to take a moment to express my thanks and appreciation to all of you who have participated in the many events sponsored by our Utah Clubs supporting communities and special events. They are too numerous to list but represent many hours of dedicated work devoted to supporting our hobby.

I thoroughly enjoyed attending WIMU at Jackson Hole this summer and those who attended from Utah all enjoyed this event that has a great history in the four states, Wyoming, Idaho, Montana, and Utah. It has been many years since the last WIMU and I feel that it is nice to have WIMU back! I would like to express my thanks and appreciation to those Utah clubs that help with financial donations to help get WIMU funded and off to a good start. We had a very good turnout from Utah supporting this event and I am already looking forward to WIMU next year 3-5 Aug 2007 in Jackson Hole at the Virginian. We have volunteered to host WIMU and are making plans to organize that committee and start the plans for this very

unique hamfest. If you were unable to attend this year please put the dates on your calendar now and join us in Jackson Hole next Summer. If you would like to help out on the committee please don't be bashful let me know and we will be happy to involve you on a committee that you will enjoy, please email me so I can include you in our planning meetings before the end of August. This is your opportunity to have an input on what WIMU 2007 will be like.

I know many of you read the info on this site and there are many events scheduled for the fall, please email me with your clubs activities and dates and I will be happy to post them here for all to know what is happening in your part of the state. Please let me know if you have any questions or concerns about ARRL. Email me at nm7p@arrl.org with the specifics.

Thanks again for everything you do to support ham radio in Utah.

73 de Mel Parkes, NM7P  
ARRL Utah Section Manager

---

## ENFORCEMENT: FLORIDA STATE LAW SHUTS DOWN UNLICENSED BROADCASTER

The Broward County Florida Sheriff's Office shut down an unlicensed broadcast radio operation. This, after receiving complaints that it was interfering with a Christian radio station's signal.

According to news reports, engineers with the Lauderdale Lakes radio station traced the interfering signal to a home in the town of Sunrise. There, Sheriff's detectives using Florida's anti-pirate radio law arrested 41-year-old Sitho Bains on Wednesday evening, November 1st.

At the home, detectives found a radio antenna attached to a palm tree in the front yard with a black cable leading back to the house. The sheriff's office seized Bains' radio equipment and charged him with unauthorized transmission/interference with a public radio station.

In Florida, pirate broadcasting is a third-degree felony. If brought to trial and convicted he faces five years in prison and a \$5,000 fine for each count.

Bains is currently free on a \$1000 bond. (CGC, published reports)

# MORE AR HOBBY NEWS

## ENFORCEMENT: A STRANGE OUTCOME TO AN FCC LETTER

A ham who was notified by the FCC that his license was being suspended by the FCC because failed to maintain a current mailing address has opened up a real can of worms in an alleged interference case.

This is because Charles Fenske, N0PPZ, of Duluth Minnesota, says that he has been off the air for years and could not possibly be the source of interference that resulted in the first letter to him from the FCC.

According to the FCC, back on September 20<sup>th</sup> the agency issued a letter to Charles Fenske, N0PPZ, at his last address of record. The letter required him to respond to complaints alleging deliberate interference on 3.913 MHz, operation on unauthorized frequencies and failure to control his transmitter.

But that letter was returned by the Postal Service and classified as "not deliverable as addressed" and "unable to forward.. So on October 10<sup>th</sup>, the FCC issued another letter to Fenske citing Section 97.23 of the Commission's Rules and suspending his Technician class license 15 days after the date of that letter being issued. This, for the remainder of the license term, or until a valid mailing address is provided back to the FCC.

Apparently he got word of what was happening and according to his post under his call listing on QRZ.com, that there is no way that he could be the station causing interference on 75 meters. This is because he is blind and has not even had an Amateur station since 2000.

Fenske posting goes on to say that he has conferred with the FCC's Riley Hollingsworth. He says that Hollingsworth is sending him the paperwork so he can see who it is that is accusing him. Once he has the information his post says that he plans to make all of it public over QRZ.com.

Meantime it looks as if the FCC may now have two mysteries to solve. The first be to find out whome it is that has been bootlegging with Charles Fenske's N0PPZ callsign. Also, why didn't those accusing him take the time to check and see if they had the right man before complaining to the FCC.

We will let you know where this one goes next.

For the Amateur Radio Newsline,  
Bill Pasternak, WA6ITF.

---

# ANNOUNCEMENTS

## Next Club Meeting:

**3rd Sat November 18, 2006**

- 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**  
(see website for map)
- **Topic/Activity:**  
9/11 and Air Traffic Control  
by Jim Rudnicki NZ7T
- **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.

## Next Weber Co VE Test Session:

**February 07, 2007 (Wednesday)**

- 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 CENTER**  
2380 Washington Blvd,  
Room # 112  
OGDEN, UT 84401

**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	TONE	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	TONE	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-	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

## 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 09:00 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	3.708 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	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>
Tuesday @ 6:30 PM (winter)	Weber ARES	448.600 - 123.0
Tuesday @ 8:00 PM (summer)	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	UBET ARC	145.290-, 145.430-, 448.300- (all 123.0)
Wednesday @ 8:30 PM	CSEARG	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 @ 7:00 PM	Davis ARES	147.420 = simplex
Thursday @ 8:00 PM	Weber State ARC	146.820 - 123.0 (coming soon)
Thursday @ 8:00PM	RACES State VHF	145.490 - 123.0, 146.680 - 123.0 3 <sup>rd</sup> Thursday - even months only
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>

---

*OARC OFFICERS*

President: Mike Fullmer KZ7O  
Vice Pres: James Clarke KD7SWL  
Secretary: Joan Fullmer N7OLZ  
Treasurer: Jim Southwick N7JS

Director #1: Charles Horn KD7SST  
Director #2: Kent Gardner WA7AHY

*"WATTS NEWS" e-Magazine*

Editor: Val Campbell K7HCP

*OTHER CLUB FUNCTIONS*

Webmaster: Val Campbell K7HCP  
VE Liaison: Mary Hazard W7UE  
Repeater Engr: Mike Fullmer KZ7O  
Past President - Advisor:  
Gary Liptrot N7ZI

---

**73 es cul de W7SU**

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