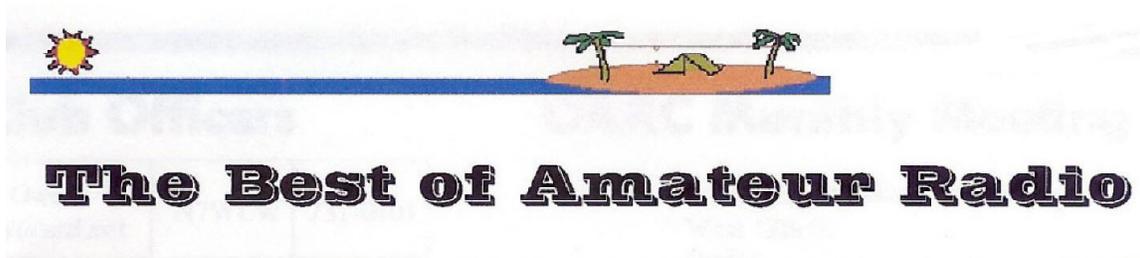




WATTS NEWS



Welcome to the OARC e-Magazine

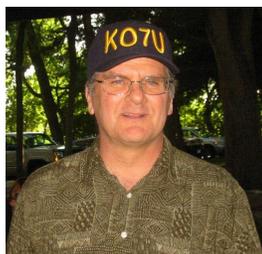
www.OgdenArc.org

FEBRUARY 2012

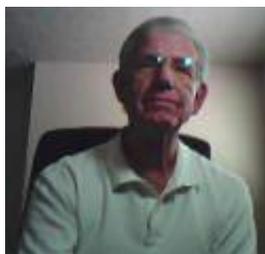
Next Club Meeting/Activity

3rd Saturday 18 February 2012

Topic: Mike Fullmer KZ7O - EZNEC Antenna Modeling Software



Kim Owen K07U
President



Larry Griffin AD7GL
Vice President



Gary Hudman KB7FMS
Secretary



John Shupe K7DJO
Treasurer



Gil Leonard KF7KPL
Program Director



Dave Woodcock KF7PAV
Activity Director



Val Campbell K7HCP
Webmaster/NL Editor

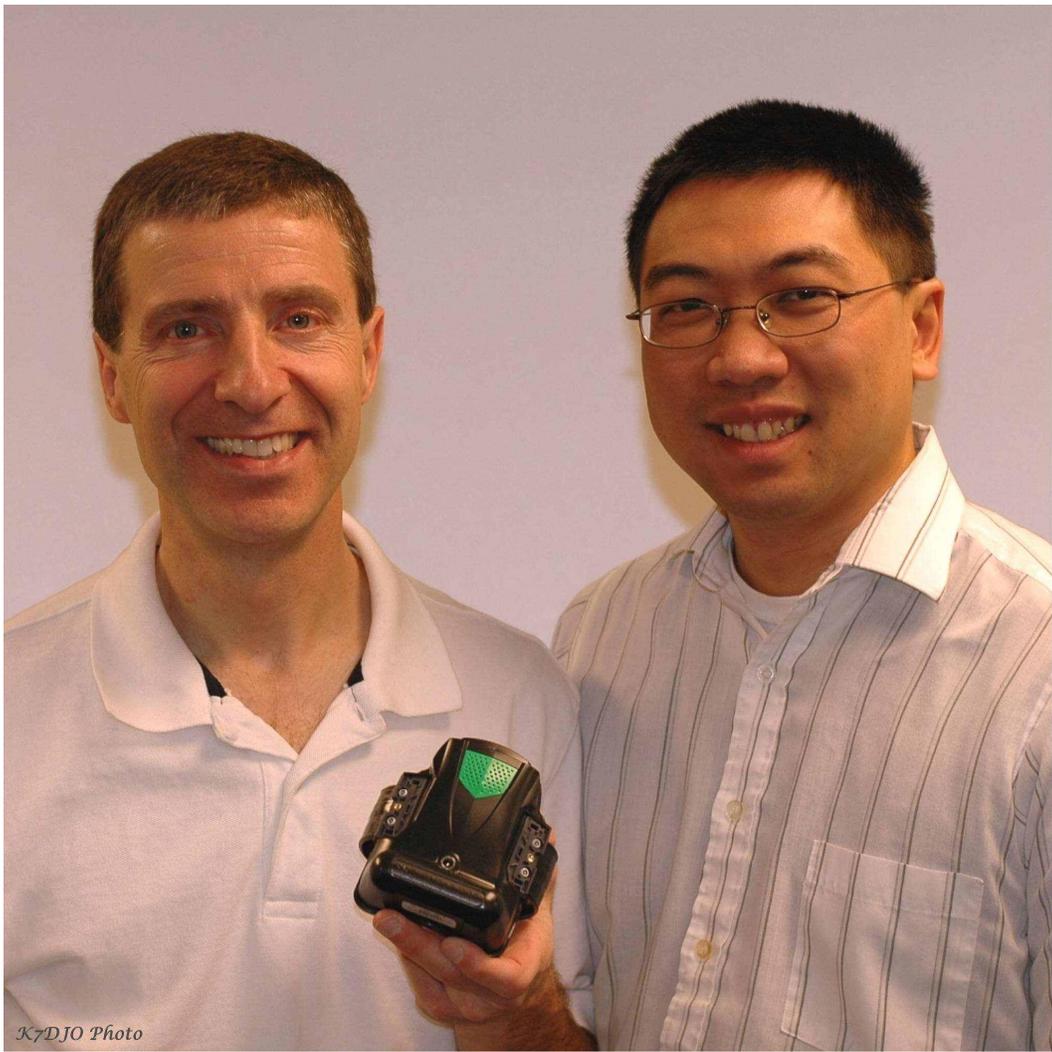
PREVIOUS CLUB MEETINGS

3rd Saturday 21 January 2012

Secure Alert by Robert Laumer KC8FTV

Robert Laumer and Bruce Derrick are with Secure Alert (www.securealert.com). Secure alert manufactures security monitoring equipment for law enforcement using various technologies. Their product and use of technology was very interesting. Our thanks to Robert and Bruce for a very interesting presentation.





NEXT CLUB MEETING

When: 3rd Saturday 18 February 2012

Time: 9:00 AM

Location: Riverdale Fire Station

Topic: Mike Fullmer KZ7O - EZNEC Antenna Modeling Software

Mike KZ7O will talk about computer antenna modeling in general. Then using a laptop he will show the EZNEC program and what it can do. It will demonstrate how to create an antenna using the computer modeling program. He promises not get too mathematical, because to really use the full power of the program it takes a little math background. He has all of his antennas at home modeled, both the wire and tower antennas, VHF/UHF and HF.

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](#). Instructions for mailing it are on the form.

DUES: Dues are \$15.00 per person and runs September - August.
Additional family members are \$8.00 each.

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

FROM KIM'S SHACK



Kim Owen K07U - President

CQ ALL Members and Friends of OARC

It's February – Is your calendar updated? We have ground-hog day on the 2nd, we celebrate Valentine's-day on the 14th and OARC meeting on the 18th, Presidents-day on the 20th and the VHF Society Swap Meet on the 25th.

Do you watch the movie “Ground-hog Day” every year? How would it be the have a “Perfect-day”? What would your perfect day be?

Well, I have had some winter wows. In preparation for the big wind storm in December, I lowered the tower. I needed to do some work on the broad band antenna. I had a high SWR on all bands, hum, wet connector? Yesterday I went out to look at it. I found a hornet's nest, but the hornets were gone. The connectors looked okay. I checked the SWR again; it was okay, hum, gremlins?

Club meeting this month will be presented by Mike Fulmer/KZ7O. He is going to talk to us about antenna modeling using software. See the web site for more information.

See you there!

Don't forget Valentine's Day!

Give you main squeeze a big squeeze!

**For now,
73 de Kim/K07U**

CLUB NEWS

Congratulations to the following new "Hams" that successfully tested at the February Weber Co VE Test Session

Jones, Larry R	Extra	AE7RH
Nelsen, Jason	General	KF7TZA
Barello, Marc	Tech	KF7TZE
Elsley, James R	Tech	KF7TYW
Bailey, David H	Tech	KF7TZC
Haskett, Eric F	Tech	KF7TZD
Morrison, Brodie R	Tech	KF7TYV
Phipps, David J	Tech	KF7TYY
Phipps, Ronald K	Tech	KF7TZB
Phipps, Vicki T	Tech	KF7TYX
Raines, Mark	Tech	KF7TZF
Roche, Shelly L	Tech	KF7TYZ

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 any club officer via email or see them at the next club meeting. See web site www.ogdenarc.org "Club Officers" page.

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**.

MORE CLUB NEWS

UvhfS SwapMeet

25 February 2012 @ 08:00 AM



The main entrance of the Utah State Fairpark - the scheduled site of the 2012 UVHFS swapmeet and those of recent past.

When is it?

- **Saturday, February 25, 2011, beginning at 8:00 AM.**

Where will the swap meet be this year?

- At the Utah State Fairpark. This is located along the north side of North Temple at about 10th West. The festivities will be in the Zion building - *the same building as last year - and the year before that , and the year before that...* The Zion building is located next to Gate B (*see map*) in building 34.
- **If you have any doubt, just follow the crowd.**

New Satellites Reach Orbit

ARRL 02/13/2012

At 1000 UTC February 13, a European Space Agency *Vega* rocket lifted off from Kourou, French Guiana on its inaugural flight. It carried the [Laser Relativity Spacecraft](#) (LARES) to orbit along with eight student-built MicroSats and CubeSats. The student satellites will transmit telemetry in the VHF, UHF and microwave amateur bands, with one satellite also including a voice repeater. The lineup includes:

[ALMASat-1](#) from the University of Bologna, Italy, transmitting 1200-baud packet data at 437.465 and 2407.850 MHz.

[Xatcobeo](#), a collaboration between the University of Vigo and INTA, Spain, transmitting telemetry at 437.365 and 145.940 MHz.

[Robusta](#), from the University of Montpellier, France transmitting 1200-baud packet telemetry at 437.325 MHz with one 20-second data burst every 3 minutes.

[E-St@r](#), a project of Politecnico di Torino, Italy, sending 1200-baud packet telemetry at 437.445 MHz.

[Goliat](#), from the University of Bucharest, Romania, transmitting 1200-baud packet data at 437.485 MHz.

[PW-Sat](#) from the Warsaw University of Technology, Poland, which includes a voice repeater mode in addition to its telemetry functions. The voice repeater will listen for transmissions at 435.020 MHz FM and retransmit at 145.900 MHz SSB. PW-Sat telemetry will be sent as 1200-baud packet and CW at 435.020 MHz.

[MaSat-1](#) from the Budapest University of Technology and Economics, sending 625/1250 bps GFSK data at 437.345 MHz. Ground station software is available [here](#).

[UniCubeSat GG](#) from the University of Rome, which will transmit 9600-baud data at 437.305 MHz.



GUEST ARTICLE

Amateur Radio Finally Jumps on the Maker Bandwagon

by Dan Romanchik, KB6NU

Over three years ago, I wrote that amateur radio should do more to associate itself with the Maker, or "do it yourself" (DIY) movement (www.kb6nu.com/lets-get-on-the-maker-bandwagon/). Well, it finally looks like it is going to do just that.

Just before the first of the year, the ARRL unveiled its DIY campaign (www.arrl.org/news/arrl-launches-new-diy-campaign). The most visible part of the campaign is a video (www.youtube.com/ARRLHQ), but there are also some other bits, including:

- a flier to be handed out to interested persons,
- buttons that say "Ask Why I DIY with Ham Radio," and
- a PowerPoint presentation and speaker's notes that you can use to give a presentation to an amateur radio club or other non-ham group.

These items are available from the ARRL website, www.arrl.org/DIY.

CQ also on board

CQ magazine is also jumping on the bandwagon. They recently announced that they will run a quarterly "Maker" column, written by Matt Stultz, KB3TAN. Stultz is the founder of HackPittsburgh, a "hackerspace" or community workshop for makers in Pittsburgh, Pennsylvania. He has been a ham since 2009 and has integrated amateur radio into many of HackPittsburgh's activities.

Stultz's first column, titled "We Are Makers," will appear in the March issue of CQ. It provides a general introduction to the maker/hacker community for hams, as well as a description of a high-altitude balloon project that brought the two groups together in Pittsburgh.

Hams at the Maker Faire

In 2006, Make: magazine hosted the first Maker Faire (www.makerfaire.com) in San Mateo, CA. Since then, Maker Faires have also been held in Austin, TX, New York, NY; and Detroit, MI. Maker Faires are showcases for all kinds of crazy projects that people are working on.

Hams usually have a presence at these events. This year, the theme for one of the amateur radio groups participating in the California Maker Faire, which is the flagship event, is Arduino (www.arduino.cc) applications in amateur radio. Michael, NE6RD, who is organizing this group has lined up several very cool projects. One of them is an Arduino-controlled satellite antenna system.

A project I proposed is an Arduino-controlled keyer. On the face of it, this is not a real exciting project, but my twist on this is that instead of directly keying a transmitter, I plan to have the Arduino actuate a solenoid that will press a straight key. That should make the project a little more visual.

Hams sometimes like to claim that we were the original makers and hackers. We certainly have a long tradition of DIYing. Let's show these upstarts exactly what ham radio is capable of. Perhaps, in the process, we'll even entice a few of them to join us.

=====

When he's not "making" things, Dan, KB6NU, teaches ham radio classes and works a lot of CW. You can contact him about some of the things you're making by e-mailing cwgeek@kb6nu.com.

FEATURE ARTICLE

Submitted by Mike Groves, KD7MG

Car Radio, an Interesting Quincy, Illinois Story

Radios are so much a part of the driving experience, it seems like cars have always had them. But they didn't. Here's the story.

SUNDOWN

One evening in 1929 two young men named William Lear and Elmer Wavering drove their girlfriends to a lookout point high above the Mississippi River town of Quincy, Illinois, to watch the sunset. It was a romantic night to be sure, but one of the women observed that it would be even nicer if they could listen to music in the car.

Lear and Wavering liked the idea. Both men had tinkered with radios – Lear had served as a radio operator in the U.S. Navy during World War I – and it wasn't long before they were taking apart a home radio and trying to get it to work in a car. But it wasn't as easy as it sounds: automobiles have ignition switches, generators, spark plugs, and other electrical equipment that generate noisy static interference, making it nearly impossible to listen to the radio when the engine was running.

SIGNING ON

One by one, Lear and Wavering identified and eliminated each source of electrical interference. When they finally got their radio to work, they took it to a radio convention in Chicago. There they met Paul Galvin, owner of Galvin Manufacturing Corporation. He made a product called a "battery eliminator" a device that allowed battery-powered radios to run on household AC current. But as more homes were wired for electricity, more radio manufacturers made AC-powered radios. Galvin needed a new product to manufacture. When he met Lear and Wavering at the radio convention, he found it. He believed that mass-produced, affordable car radios had the potential to become a huge business.

Lear and Wavering set up shop in Galvin's factory, and when they perfected their first radio, they installed it in his Studebaker. Then Galvin went to a local banker to apply for a loan. Thinking it might sweeten the deal, he had his men install a radio in the banker's Packard. Good idea, but it didn't work – half an hour after the installation, the banker's Packard caught on fire. (They didn't get the loan.) Galvin didn't give up. He drove his Studebaker nearly 800 miles to Atlantic City to show off the radio at the 1930 Radio Manufacturers Association convention. Too broke to afford a booth, he parked the car outside the convention hall and cranked up the radio so that passing conventioners could hear it. That idea worked – he got enough orders to put the radio into production.

WHAT'S IN A NAME

That first production model was called the 5T71. Galvin decided he needed to come up with something a little catchier. In those days many companies in the phonograph and radio businesses used the suffix "ola" for their names – Radiola, Columbiola, and Victrola were three of the biggest. Galvin decided to do the same thing, and since his radio was intended for use in a motor vehicle, he decided to call it the Motorola.

But even with the name change, the radio still had problems: When Motorola went on sale in 1930, it cost about \$110 uninstalled, at a time when you could buy a brand-new car for \$650, and the country was sliding into the Great Depression. (By that measure, a radio for a new car would cost about \$3,000 today.) In 1930 it took two men several days to put in a car radio – the dashboard had to be taken apart so that the receiver and a single speaker could be installed, and the ceiling had to be cut

open to install the antenna. These early radios ran on their own batteries, not on the car battery, so holes had to be cut into the floorboard to accommodate them. The installation manual had eight complete diagrams and 28 pages of instructions.

HIT THE ROAD

Selling complicated car radios that cost 20 percent of the price of a brand-new car wouldn't have been easy in the best of times, let alone during the Great Depression – Galvin lost money in 1930 and struggled for a couple of years after that. But things picked up in 1933 when Ford began offering Motorola's pre-installed at the factory. In 1934 they got another boost when Galvin struck a deal with B.F. Goodrich tire company to sell and install them in its chain of tire stores. By then the price of the radio, installation included, had dropped to \$55. The Motorola car radio was off and running. (The name of the company would be officially changed from Galvin Manufacturing to "Motorola" in 1947.) In the meantime, Galvin continued to develop new uses for car radios. In 1936, the same year that it introduced push-button tuning, it also introduced the Motorola Police Cruiser, a standard car radio that was factory preset to a single frequency to pick up police broadcasts. In 1940 he developed with the first handheld two-way radio – the Handie-Talkie – for the U.S. Army.

A lot of the communications technologies that we take for granted today were born in Motorola labs in the years that followed World War II. In 1947 they came out with the first television to sell under \$200. In 1956 the company introduced the world's first pager; in 1969 it supplied the radio and television equipment that was used to televise Neil Armstrong's first steps on the Moon. In 1973 it invented the world's first handheld cellular phone. Today Motorola is one of the second-largest cell phone manufacturer in the world. And it all started with the car radio.

WHATEVER HAPPENED TO

The two men who installed the first radio in Paul Galvin's car, Elmer Wavering and William Lear, ended up taking very different paths in life. Wavering stayed with Motorola. In the 1950's he helped change the automobile experience again when he developed the first automotive alternator, replacing inefficient and unreliable generators. The invention led to such luxuries as power windows, power seats, and, eventually, air-conditioning.

Lear also continued inventing. He holds more than 150 patents. Remember eight-track tape players? Lear invented that. But what he's really famous for are his contributions to the field of aviation. He invented radio direction finders for planes, aided in the invention of the autopilot, designed the first fully automatic aircraft landing system, and in 1963 introduced his most famous invention of all, the Lear Jet, the world's first mass-produced, affordable business jet. (Not bad for a guy who dropped out of school after the eighth grade.)

Radio as installed in early vehicles...



This is the "control head" for the radio. This mounted on the steering column and the controls were connected to the radio chassis via steel cables, much like a speedometer cable.



ANNOUNCEMENTS

Next Club Meeting:

3rd Saturday 18 February 2012

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

- **Time: 9:00 AM**
- **Location: Riverdale Fire Station**
- **Topic: Mike Fullmer KZ7O
EZNEC Antenna Modeling Software**
- **Talk-in: -146.90 (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 06 June 2012

- 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: New for June & October 2012

**Ogden Public Safety Building
2186 Lincoln Ave Ogden Utah**

Contact: VE Liaison:

Mary Hazard

w7ue@arrl.net (801-430-0306)

Rick Morrison

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

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.

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-	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
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
OgdenARC	ogdenarc.org	3 rd Saturday 09:00 am	Check OARC web site ...
WC ARES	ogdenarc.org/join.html#ares	2 nd Thursday 06:30 pm	Weber Co. Library Ogden Utah
WC Sheriff Comm-O		1 st Saturday 10:00 am	Weber Co. Sheriff Complex West 12 th Street Ogden Utah
Barc	barconline.org	2 nd Saturday 10:00 am	Cache Co. Sheriffs Complex 200 North 1400 West Logan Ut
CSERG	dcarc.net/ares.htm/	Last Wednesday 8:30pm	Clearfield City Hall Clearfield Utah
DCarc	dcarc.net	2 nd Saturday 10:00 am	Davis Co. Sheriff Complex Farmington Utah
NU Ares	home.comcast.net/~noutares/	3 rd Wednesday 7:00 pm	Cache Co. Sheriff Office Logan Utah
Uarc	xmission.com/~uarc/	1 st Thursday 7:30 pm	UofU EMC Bldg Room 101 Salt Lake City Utah
GSarc	Ubetarc.org	Check Website	Check Website
Utah DX Association	udxa.org	3 rd Wednesday check web page for details	check web page for details Salt Lake City area
UvhfS	ussc.com/~uvhfs/	Each Tuesday 8:00 pm (refer to web site)	Weekly 2 meter net (no eye ball meetings)
WDArc	westdesertarc.org/	1 st Tuesday 7:00 pm	Tooele County Courthouse Tooele Utah
WsuArc	arcweber.edu	3 rd 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 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	147.060 = 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 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
Saturday @ 8:00AM mst	RACES State HF	3.920 Mhz HF LSB 3 rd Saturday – odd months only
Saturday @ 11:00AM mst	QCWA net HF	7.272 Mhz HF LSB

OARC OFFICERS

President: Kim Owen KO7U

Vice Pres: Larry Griffin AD7GL

Secretary: Gary Hudman WB7FMS

Treasurer: John Shupe K7DJ0

Program Director:
Gil Leonard KF7KPL

Activity Director:
Dave Woodcock KF7PAV

"WATTS NEWS" e-Magazine

NL Editor: Val Campbell K7HCP

OTHER CLUB APPOINTMENTS

Webmaster: Val Campbell K7HCP

Historian/Librarian: Kent Gardner WA7AHY

Advisor: Kent Gardner WA7AHY

Advisor: Stan Sjol WOKP

Photographer: John Shupe K7DJ0

QSL Manager: John Shupe K7DJ0

Equipment Manager: Val Campbell K7HCP

Repeater Engineer: Mike Fullmer KZ7O

VE Liaison: Mary Hazard W7UE and
Richard Morrison W7RIK

73 es cul de W7SU

www.OgdenArc.org