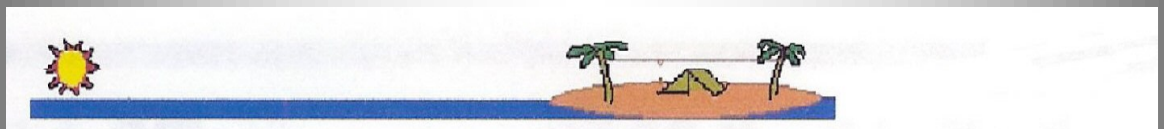
WATTS NEWS



The Best of Amateur Radio

OARC e-Magazine

www.OgdenArc.org

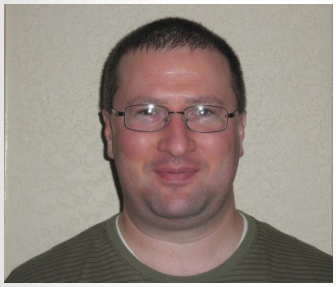
DECEMBER 2014

Next Club Meeting/Activity

Activity: OARC Annual Family Christmas Dinner

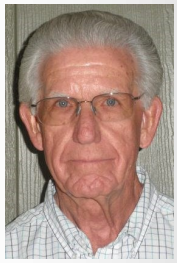
Gil Leonard NG7IL

President



Jason Miles KE7IET

Vice President

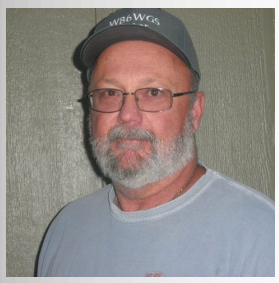


Larry Griffin AD7GL

Secretary

John Shupe K7DJO

Treasurer

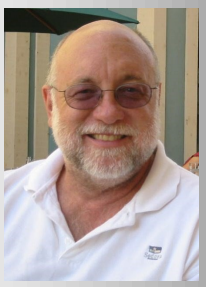


Pete Heisig WB6WGS

Program Director

Mike Taylor KE7NQH

Activity Director



Val Campbell K7HCP

Webmaster/NL Editor

PREVIOUS CLUB MEETINGS

3rd Saturday 15 November 2014
9:00 AM
Riverdale Fire Station

Meeting : Antenna Basics
By Mike Fullmer KZ7O

(38 were in attendance)

NEXT CLUB MEETING/ACTIVITY

OARC Annual Family Christmas Dinner

3rd Saturday 20 December 2014
6:30 PM
Golden Corral
11th & Washington Blvd, Ogden

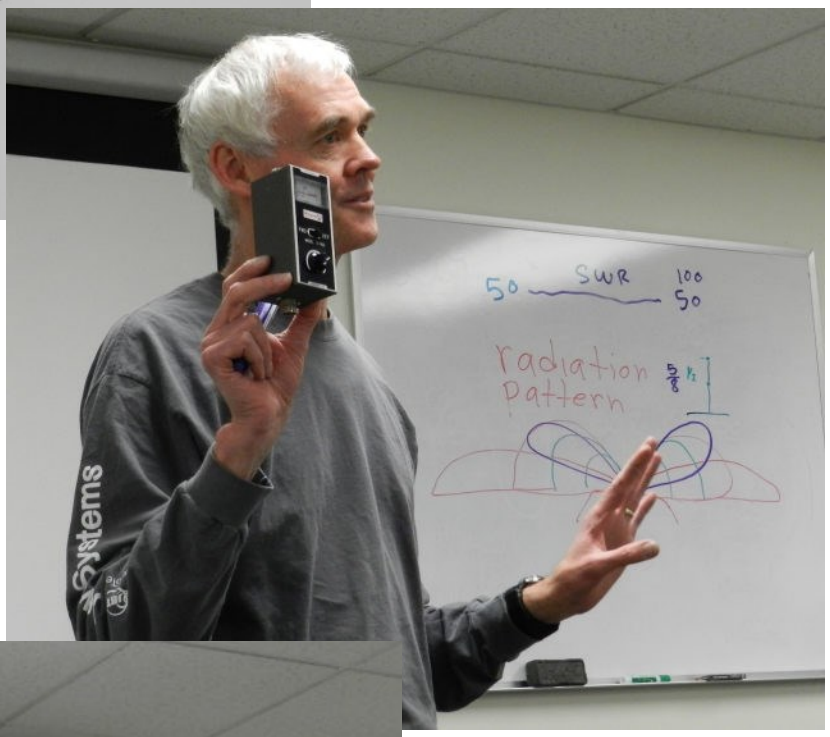
OARC Annual Family Christmas Dinner

DOOR PRIZES

Door prizes: Must be a member to win - sign-up your spouse too!
(sign-up/renew at beginning of meeting)

PREVIOUS MEETINGS PICS

Photos by John K7DJO


50
SWR
100
50
radiation
pattern

OARC COMING EVENTS

-OARC Annual Family Christmas Dinner -

3rd Saturday 20 December 2014
6:30 PM
Golden Corral
11th & Washington Blvd, Ogden

-Tech Licensing Class -

One day crash course

Saturday 24 January 2015 @ 8:00 AM

Special VE Test Session follows at 3:00 PM

Get Your Ham Radio License

Location:	Weber County Sheriff's Office Training Room 721 West 12th Street, Ogden (Just south of the Business Depot Ogden)
Class Date:	Saturday, January 24th, 2015 from 8 a.m. to 3 p.m.
Class Price:	Free
Exam Date:	Immediately after the class
Exam Price:	$14
Contact:	Jason Miles KE7IET at (801) 896-3702 or jmiles2@gmail.com
Pre-Registration:	Walk-ins are welcome, but pre-registering would be appreciated where possible. Contact Jason Miles (see above) before January 24th, 2015 to pre-register.

Photo from user "Jakor" at Wikimedia Commons

Why get a license?

The hobby encompasses a wide range of interests. Here are just a few.

- Prepare for emergencies and other situations where cell phones may not be available.
- Socialize with people locally, nationally, and internationally.
- Participate in competitions and achievements.
- Build electronics that use radio frequencies.

How do you get a license?

The Federal Communications Commission requires that you take a 35-question, multiple-choice exam to get your first license. That's it. Morse code is NO LONGER required. Passing the exam gets you an entry-level "technician" license.

The Ogden Amateur Radio Club will be conducting a FREE one-day class to teach the concepts from the exam. It will be in a "cram session" format, where the entire study guide is taught in a few hours. The exam will be conducted immediately after the class finishes.

How do you study?

The curriculum for the class will be the free "No Nonsense" study guide written by Daniel Romanchik, KB6NU. It is available at the following address:

http://www.kb6nu.com/wp-content/uploads/2007/09/2014-no-nonsense-tech-study-guide-v1.1.pdf

Even though we will be reviewing the study guide in the class, it is strongly recommended that you study it before the class. You'll have the best chance of passing the exam if you do.

What do you bring?

- A copy of the KB6NU *No-Nonsense Technician-Class License Study Guide*
- Two forms of identification, at least one of which should be photo ID
- $14 for the exam
- Optional: scientific calculator, scratch paper, and pen or pencil

Questions?

The class and exam session are being conducted by the Ogden Amateur Radio Club. You can direct questions to Jason Miles, KE7IET at (801) 896-3702 or jmiles2@gmail.com. Information about the club and its activities can be found at the club's website: ogdenarc.org.

QRM from Gil

Gil Leonard NG7IL

Special thanks to Mike Fulmer KZ7O for "hitting it out of the park". It was standing room only and everyone got something new from Mike's presentation. He really filled in a lot of blanks about antennas for me. Sadly, time kept him from getting into even more interesting antenna details. Lucky for us, he has graciously agreed to give us part two in the future. It shouldn't be hard to optimize your stations for the operation that interests you the most.

As the days get shorter hopefully there is more time for getting out into the shack and making some new contacts. Maybe it's time to grab the study manual, and get ready for the February test session to upgrade your license. There are a lot of different activities to enjoy on the HF bands. There is so much more beyond SSB or code that can be explored with your computer and modest antenna systems using low power. You will amaze yourself at what contacts you will make.

The activity on the Little Mountain repeater seems to be picking up. I encourage everyone to see how many different contacts you can make. It's also refreshing to see the Yahoo groups getting more activity as well. There are some good conversations going on. Feel free to chime in or start a new thread.

Just a reminder, the Christmas party is coming up this month on the 20th, 6:30pm at the Golden Corral on Washington Boulevard. Full details can be found on the club website. Plan on joining us, we have some really great gifts to give away. I am looking forward to seeing you all there.

I hope you had a great Thanksgiving and wish everyone a great Christmas holiday season.

73 de Gil

CLUB NEWS

Welcome to the following OARC "New-Comers" that visited our club meeting recently. We welcome you back soon!

Steve Perry — KG7BIK

Richard Terrell

Lynette Sant— KD7LLR

Jeff Jones— KG7OUW

Tom Ruiz— KG7IGT

John McCrary— KG7OGV

Also …

Jerry Mohr—KF7WJH

Forrest Terrell—KG7NJF

Christine Johnson—KE7WZT

Luke Jenkins—KD7FDH

Paul Fawson—KD7OYH

CLUB NEWS

Club Badges

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

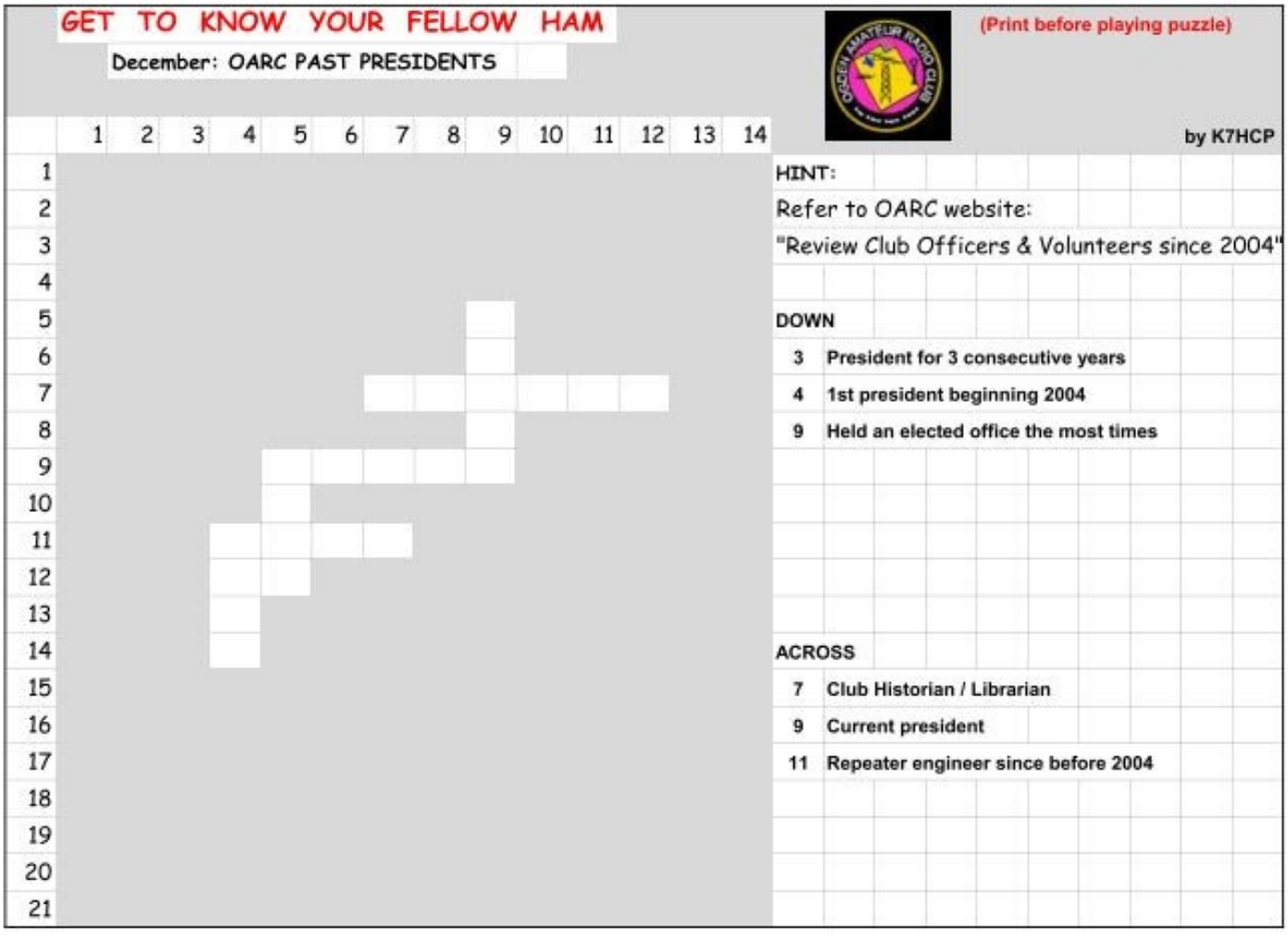
• AK7PH, Patrick • KD7OYH, Paul • KE7VVT, John • KF7HNU, Ralph	• KG7FMY, Ryan • KG7IHA, Tom • KG7LIG, Andrea • KG7NJF, Forrest

CLUB GAMES

GET TO KNOW YOUR FELLOW HAM

This month: Test your knowledge of our OARC past presidents.

How to play: Go to the OARC website home page and click the link OARC Monthly “Cross Word Puzzle” from the right side panel. Then print the .PDF file.



Club Swapmeet

"SALE" or "WANTED" ITEMS NEEDED

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

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

Featured Items

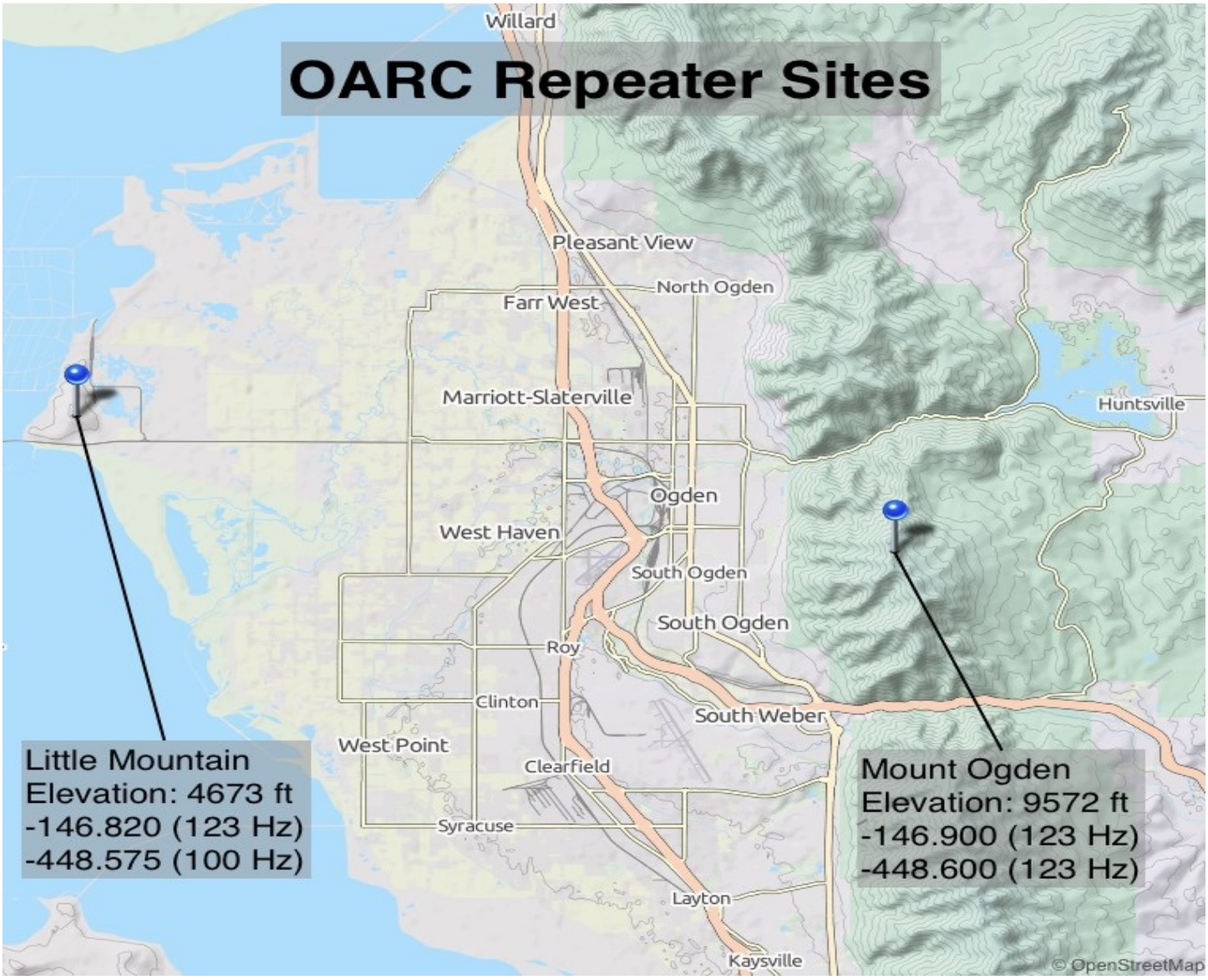
COPPER J-POLE ANTENNA

Description: Professional quality 2 meter copper j-pole purchased from KB9VBR (www.jpole-antenna.com). **Price: $35.00**
Contact: Chris (K2CTC) Email: sales@x-it.com

Ham Radio Amplifier Amp Supply LK-500ZA

A fully operational Amp Supply LK 500ZA 160-10M HF Amp.This amplifier is in beautiful condition.(non-Smoker)
This amp runs a pair of 3-500Z tubes and are the original factor Eimac tubes and are full power. This amp was design to for 1000 watts output PEP.
Price: $850.00
Contact: Larry N7ZDR, Call or TXT 208-582-3645

CLUB REPEATER NEWS



Scott Willis KD7EKO

Mike Fullmer KZ7O

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

CLUB REPEATER NEWS

Repeater Auto Patch 101

by Mike KZ7O

The autopatch concept has been around a long time. This concept was very popular 30 years ago on 2 meter repeaters. First I will explain the how and then get into the other stuff.

The repeater consists of a radio or really two radios. One is the receiver and the other is the transmitter. Both of these radios are connected to what is called a controller. The controller does just what it is called, it controls stuff. One of the things the controller does is to route the audio from the receiver to the transmitter so that the repeater can pass on your audio and re-transmit it on the transmitter. One of the other things the controller does is to listen for touch tones that may be received in the audio that come from the buttons you push on your phone or radio mic. The controller then acts on these tones and does certain things depending on what tones are received. So the controller handles anything audio related in the repeater. Now, the telephone (hardliine version) is also nothing more than audio, the same thing as what the repeater handles. It also listens for touch tones, just like the repeater does. Many years ago, someone had the idea to marry the two systems, because they acted very similar to each other.

The repeater controller actually has multiple audio inputs and multiple audio outputs. One of the audio inputs is the receiver as mentioned. Another audio input is the phone line. The controller can just as easily send the audio from the phone line to the transmitter as it can send the audio from the receiver to the transmitter. It can also send the audio from the receiver to phone line. So the controller can take in audio from any source and send it out to any other device it wants. So, when you operate the auto patch the audio is just routed to and from the phone line. The controller listens to those tones you send and makes decisions based on the tones. If it hears the correct tones it will go into autopatch mode.

Now, our controller is a smart controller. It hears the tones you send and stores them. If all the correct tones are there, then the controller brings on the autopatch and redials the number you sent. You cannot typically hear the tones the controller is sending into the phone line. Actually if you listen very carefully you can just barely detect them. One of the options available on the programming is to let you hear all the tones back again. We have this turned off. Once the number is dialed it is just like a phone, except the radios cannot hear and transmit at the same time, like the phone can. It acts like a cel phone, one person at a time can talk. When you are done with your phone call you send the correct tones and the controller hangs up the phone line and all goes back to normal.

The controller is a piece of electronics that has software in it. There is a program stored in it. The program was written to configure the way the controller works. There is lots of variation in the controls available.

Hopefully that helps with the "how it works" without getting to technical. Now about the 7 digit vs the 10 digit numbers and other thiings.

The autopatch was installed a number of years ago, long before the 485 area code existed and long before the phone system was opened up for other companies to use. It uses Quest or what ever earlier name you wish to use. In the early days, we only had to dial 7 digits to dial a number. 7 digits were local calls. To dial anywhere outside of our local call area (but still in Utah) we just added a 1 to the number. To dial outside of the state we dialed the 1 and the area code. The controller was set up to only allow 7 digit numbers so that the club did not have long distance charges. And then to further stop the long distance charges, the club purposely only signed up for local calls. All long distance was disabled at the phone company. This kept the monthly charges as low cost as possible. But then along came the change where we had to dial the full 10 digits. The software in the controller had to be modified to accept 10 digits. But the long distance block at the phone company was left in place, which is how it operates today. The monthly bill is less than $30 per month. I bet you pay more than that.So, you can dial any 10 digit number, but if it is long distance the call will not go through.

Could we switch to Comcast or another service? Probably not. First is the cost. Even when the autopatch was put on line, it was like pulling teeth getting people to help pay for the monthly bill. Many people liked to use it 10 years ago, but no one liked to donate money. Eventually Weber County agreed to pay the phone bill because it was a nice emergency feature that they felt was worth the small expense. They continue to pay it today. The second reason it is Quest, is the location. The repeater site is not exactly in the middle of a populated area with lots of services available. There is a Quest phone line, but we had to dig the trench to the nearest access point to get to it and then run our lines. This took some politics and hassles but it finally happened. There is no other services available at the site. The third reason is power. The repeater is 100% solar. Your Comcast service requires a modem that is powered by a wall wart. There is no power at the site. So even if another service was available, there is the power problem.

Mike, KZ7O

More to come ...

following the next 3 pages of commercials.

Please stay tuned.

OARC YAHOO GROUP

Did you know that OARC has a Yahoo Group?

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

You can also send notices to other group members yourself.

It's easy to sign up…

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

Club Badges

OARC Club badges are available for all club members and non-members.

The cost is $10.00 each. The badge comes with a “MAGNETIC” clip. Badge includes your Call Sign in large letters and your First Name in a somewhat smaller font in white lettering on a pitch black background with the club logo. See example below.

Place your order along with $10.00 in advance for each badge ordered and specify Call Sign and First Name. Contact webmaster or any club officer via email or see them at the next club meeting. For additional information see club website left side menu and click “Join” to fill out a club application form to order a club badge.

OARC MEMBERSHIP DRIVE

SUPPORT YOUR RADIO CLUB

Don't forget to signup/renew your OARC membership now ($15) which runs August to August. Consider signing up your spouse as well.

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

THANK YOU FOR YOUR SUPPORT

Join OARC

Renew your membership now!

Membership in the Ogden Amateur Radio Club is open to anyone interested in Amateur Radio. You do not need an amateur license to join us. You do not need to join the club to participate with us. Dues are used to operate the club, field day activities, and repeater equipment maintenance.
Joining is easy. Come to a club meeting or fill out an application form from the club website (click "Join" from the left side main menu). Instructions for mailing on the form.

DUES: Dues are $15.00 per person and runs August - August. (Ham + spouse = $25.) More than one ham in the family? Consider the OARC Family plan for $25.

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

HOBBY NEWS

A few months ago ARRL/QST announced that Tim Allen had received his Tech license. This week the Standard Examiners Saturday "American Profile Magazine" contained the following article on the same subject. Way to Go—Tim!

Tim Allen

Like his *Last Man Standing* character Mike Baxter, Tim Allen is now a licensed amateur radio operator. In September, the Denver, Colo., native, who grew up in Birmingham, Mich., joined two dozen members of the sitcom's crew in earning his technician license. The former *Home Improvement* star, 61, will reprise his role as the voice of Buzz Lightyear Dec. 2 in the ABC Christmas special *Toy Story That Time Forgot*.

"Frequency" TV Series Would Reprise Amateur Radio-Themed Movie

Editors Note:

I have always thought that he looks a lot like Gil NG7IL. Don't you?

Mike Baxter, KA0XTT -- Tim Allen's character in the "Last Man Standing" TV show on ABC -- may be getting some competition on the ham bands, as NBC appears poised to launch a television series based on the 2000 movie *Frequency*, in which ham radio -- aided by some spectacular solar phenomena -- plays a central role in the sci-fi thriller.

According to a November 13 article in *The Hollywood Reporter*, NBC has already committed to the series. Jeremy Carver is writing the script for Warner Brothers Television and will be the series' executive producer. Toby Emmerich, who wrote the movie, will be a co-producer.

While Amateur Radio has made only fleeting appearances in "Last Man Standing," it is an essential plot device in *Frequency*. In the movie, a New York City fireman, Frank Sullivan, played by Dennis Quaid, re-connects via a bizarre ham radio link with his son, John, 30 years in the future. Jim Caviezel, now a star in the CBS drama, "Person of Interest," portrayed John Sullivan, an NYPD detective.

John Sullivan comes across his late father's 1960's-era Heathkit transceiver, through which -- with the help of a quirk of nature and some Hollywood magic -- he is able to communicate with his father through time and space. *Thanks to John Bigley, N7UR,* Nevada Amateur Radio Newswire.

QRZ.COM

SpinSat to deploy from ISSSpinSat was launched to the International Space Station (ISS) on September 21 with deployment planned to take place from the Japanese Experiment Module (JEM) in the Fall.

Masahiro Arai JN1GKZ has reported that a small satellite, which is possibly SpinSat, is expected to be deployed from the airlock of the JEM on Friday, November 28. Preparation work for the deployment should take place on November 26 and 27. Developed by the Naval Research Laboratory (NRL) SpinSat is a 56 cm sphere weighing 57 kg that has 12 Electronically-controlled Solid Propellant (ESP) thrusters spread in pairs throughout the surface of the satellite. They will be fired in pairs to spin the spacecraft. With just primary batteries and only 4.8 grams of fuel this phase may last between three to six months. The spacecraft will be used to calibrate the space surveillance network. Lasers will be fired at SpinSat from the ground, the light reflected back will be measured to determine where in time and space the satellite is passing overhead. SpinSat will also model the density of the atmosphere.

The IARU Satellite Frequency Coordination Panel report that SpinSat carries a 2 watt RF output 9600 bps AX.25 packet radio store and forward system on 437.230 MHz.

GUEST ARTICLE by KB6NU

Free Stuff!

By Dan Romanchik, KB6NU

I'm a sucker for free stuff. Below, you'll find links to a free transistor amplifier design program, a free printed circuit board design program, and a free tutorial on antennas. All of these look to be worth a look.

TransistorAmp 1.1
This is free software for designing bipolar transistor amplifiers. I found the link to this software (http://en.transistoramp.de/) on the AMRAD mailing list. Phil, M1GWZ, who posted the link, says, "A transistor circuit that I'm developing needed a 5x voltage gain stage. I could have thrown in a single op amp with split power rails and all that DIL8 real estate, but a single transistor stage would suffice. Trouble is, I'm an EE by inclination, not training, and all those calculations - working out those capacitor reactance values - well, I don't do them often enough for them to be easy. And I want voltage gain, not current. And then I found Transistor Amp 1.1."

"It's a nice piece of software," says Phil, "It installs easily and did the job for me quickly and easily. Oh, and when I built the circuit for real - voltage gain of 5x!"

[[NOTE: A screen shot of the software that you can use for the article can be found at http://www.kb6nu.com/wp-content/uploads/2014/11/specify-common-base-circuit.png.....Dan]]

Altium CircuitMaker

CircuitMaker (http://www.circuitmaker.com) is a free printed circuit board design tool for hobbyists, people like you and me. Maxfield Parrish of EETimes says, "one key aspect of CircuitMaker is its intuitive and easy-to-use interface -- all of the important "stuff" is presented in an easily accessible manner in a ribbon at the top of the display. Another major consideration is that Altium has decided to make CircuitMaker all about "Community," so users can easily share ideas and designs, comment on designs and offer suggestions for improvement, and generally help each other along the way."

Free antenna tutorial

For a limited time, Rohde & Schwartz and the IEEE Communications Society are offering a free tutorial on Antenna Basics (http://www.comsoc.org/form/tutorial-registration-antenna-basics). This tutorial explains the basic functionality of an antenna, starting with Hertz's antenna model. It also includes a short introduction to the fundamentals of wave propagation, the important general characteristics of an antenna and parameters, such as antenna gain, radiation pattern, bandwidth or VSWR. A more detailed explanation of the functionality of some selected antenna types (e.g. dipole or monopole) is also given.

Maik Reckeweg, Product Manager Antennas, Rohde & Schwarz GmbH, Munich, Germany, who is responsible for all the company's monitoring, measurement and communications antennas is the tutorial's.

The video is kind of dry, but I think Reckeweg does a pretty good job of discussing antenna basics. The video is also accompanied by a white paper that delves into these topics a little more completely. Overall, there's a bit more math than in most amateur radio discussions of antennas, but this makes the discussion a little more comprehensive.

==========

When not scouring the Internet for free stuff, you'll find KB6NU working on updates to his "No Nonsense" study guides, working CW on 40m, or blogging about amateur radio at www.kb6nu.com.

======= end column =======

FEATURED ARTICLE

Repeaters & GPS

by Chris (K2CTC)

This is the first in a two part series on operational aids. I hope that the information provided will be found useful to hams new and old alike. What I am going to present today is how GPS devices can be used as an aid to radio operation, and conversely, how repeater sites can be used as a navigational aid (to some extent).

I love geography and studying maps. This goes hand in hand with my passion for the outdoors and activities such as camping, off-roading, and geocaching. Which, as a side note, ties into my interest in amateur radio (as an effective "off-grid" communication tool). Originally from California, I moved to the Ogden area just over a year ago. Yet despite being here only a year, I have already had the opportunity to explore many areas of north eastern Utah. There is a certain sense of comfort/satisfaction to not only knowing where you are, but also to have a good understanding of what is around you. As I will explain, studying the locations of various repeater sites has helped me in exploring my new environment here in the great state of Utah.

When I began the task of familiarizing myself with the repeater systems in Utah I soon discovered that this exercise served a dual purpose. As it turns out, I was also familiarizing myself with names of mountain peaks as well as nearby communities. As a result, I quickly learned names and locations of populated areas, back country highways, and recreational sites throughout the state. Since repeater site coordinates are freely provided on the listing pages within the Utah VHF Society website, somewhere along the way I decided it would be a good idea to map them myself. Now before you ask why, I know this has already been done and I will explain my reasoning for duplicating the work in a bit.

We all probably have a GPS receiver or two, even if it is the "assisted GPS" in the smartphones that we carry everywhere we go. One function of all GPS devices and GPS smartphone applications is the creation and use of what are known as waypoints. A waypoint is simply a mark on the map detailing information about a specific place (or "point of interest" to use proper terminology). One or more waypoints can be compiled into a "GPX" (GPS Exchange Format) file and imported/exported across any GPS device that supports this format (I have yet to encounter one that doesn't).

What I have done is create a GPX file (using Garmin BaseCamp) containing every repeater that is also programmed into all of my transceivers. I then placed this GPX file into my smartphone GPS application as well as my Garmin handheld GPS unit. This allows me to know, with great accuracy, data such as:

*The exact distance (line of sight) from my position to a specific repeater.

*Any elevation gain/loss between my position and a specific repeater.

*The exact direction (bearing) of a specific repeater relative to my position.

If you load the GPX file into Google Earth, you get a bonus feature. Google Earth has the ability to show you an elevation profile across a path, be it a straight line (as in this use case) or a route along a road or trail. This can be very handy for showing you any obstacles between two points as it relates to VHF/UHF propagation (which tends to be line of sight). It represents this data in a very nice line graph and allows you to pinpoint the elevation at any place along the path being analyzed. It becomes possible to visualize what might not be readily obvious. It is handy to reference this feature before heading into the mountainous backcountry where peaks and canyons mix to sometimes create spotty repeater coverage in, let's say, that camp site that you are planning on staying at.

It gets better… Since I have created the waypoints manually, I also have complete control over the data associated with each waypoint. In addition to a name (to which I include frequency, offset, and access tone), latitude, longitude, and elevation, there is also a notes/comments field available for freeform text of your choosing. I have placed additional repeater features in this field such as:

*Repeater callsign.

*Repeater sponsor.

*Repeater ERP (as is listed on utahvhfs.org).

*if the repeater is considered to have wide coverage or not.

*If the repeater has emergency backup power.

*If the repeater is part of a linked system. If so, I have included which other repeaters are linked (and their frequencies, offsets, and access tones).

*If the repeater has internet linking. If so, I have included node numbers as well as link operating instructions.

*If the repeater has an autopatch. If so, I have included autopatch operating instructions.

Of course, if you want a quick and easy way of creating a GPX file with just basic repeater location information, look no further than repeaterbook.com. If you sign up for a FREE account, not only can you contribute to the community by providing information regarding repeater status, you can also benefit from the GPX export function. Using the web site, you can filter a search to a subset of repeaters (let's say all 2m repeaters in Utah) and optionally download a pre-compiled GPX file containing said set of repeaters. Or, if you simply want to look at Utah repeaters on a map, point your browser to http://lmemmott.info/UtahRepeaterMap.htm which parses the data provided by the Utah VHF Society repeater database and displays it on a Google map, really simple.

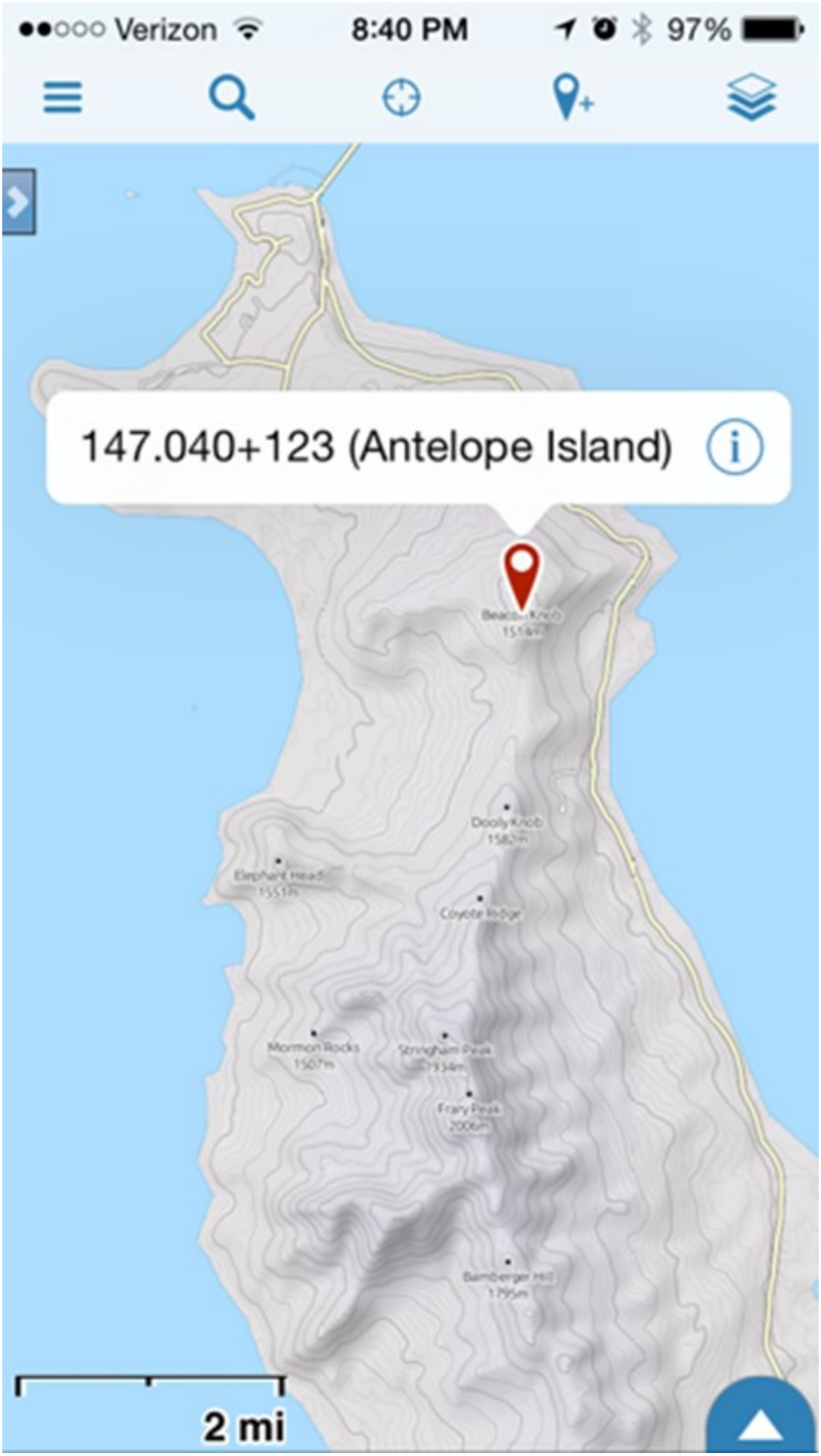
As promised, I will now point out why I chose the more difficult task of manually creating each repeater waypoint. First, I discovered that the information contained within repeaterbook.com is not always up-to-date and for some reason the location data did not translate over to my GPS devices accurately. I do not know the source of the problem, but I did observe repeaters that were misplaced on the map using data provided by the repeaterbook.com GPX file. Also, I was not satisfied with the naming syntax of the waypoints within the repeaterbook.com GPX file.

Side note… Please do not take this as a criticism of repeaterbook.com. I still think it is an amazing and valuable resource, especially the fact that it is completely FREE. In fact, they have an awesome and FREE smartphone app available to both iOS and Andriod that contains the entire repeater database and can be used without an internet connection (a seemingly rare feature with apps these days). Without going into too much detail, the app does utilize the GPS functionality of the phone to show your current grid square locator and approximate distance to a specific repeater. However, it lacks a mapping function (which would be an awesome feature addition).

Another benefit to creating a GPX file manually is, as they say, "nothing ventured, nothing gained." As I mentioned earlier, I only set out to find which repeaters I should program into my rig. By examining the repeater locations I received a bonus lesson in Utah geography and have benefited from this additional, yet seemingly unrelated knowledge. If someone had just programmed my rig for me, unless they explained all of this additional data, I would consider myself as operating partially blind. Yes, I may know which channel to tune to get into the local rag chew repeater, but I would still want to know exactly where the repeater was located as well as any specific features. These additional details help, especially a new ham like me, to follow amateur best practices and to have greater confidence while operating from remote locations. Compiling this information myself has helped commit it to memory much more than would be the case if someone simply provided me the file (such as exporting from RepeaterBook.com).

One last thing regarding repeater sites as a navigational aid during daylight hours. As an outdoorsman and volunteer Boy Scout leader I know and teach that the best way to not get lost is to always know where you are (insert joke here). Part of this strategy includes being aware of your surroundings and the ability to identify fixed points of reference (preferably something familiar), whether it be a cluster of trees, a rock formation or a mountain peak. I have personally extended this to include repeater sites, which in Utah, are often placed at the tops of mountains making them visible for miles (take for example the impressive antenna towers on Mt. Ogden). Of course the visibility of a repeater site is highly dependent on your exact location and current weather conditions, but if one is visible (and familiar), it can serve as a great point of reference and add to your overall situational awareness.

Here are a few screenshots from my iPhone showing Gaia GPS and a repeater waypoint to demonstrate the type of information that is made available:


Verizon
8:40 PM
97%
147.040+123 (Antelope Island)
Dooly Knob
Elephant Head
Coyote Ridge
Mormon Rocks
Stringham Peak
Frary Peak
Bamberger Hill
2 mi

●●○○○ Verizon 8:41 PM 97%

Back **Waypoint**

147.040+123 (Antelope Island)

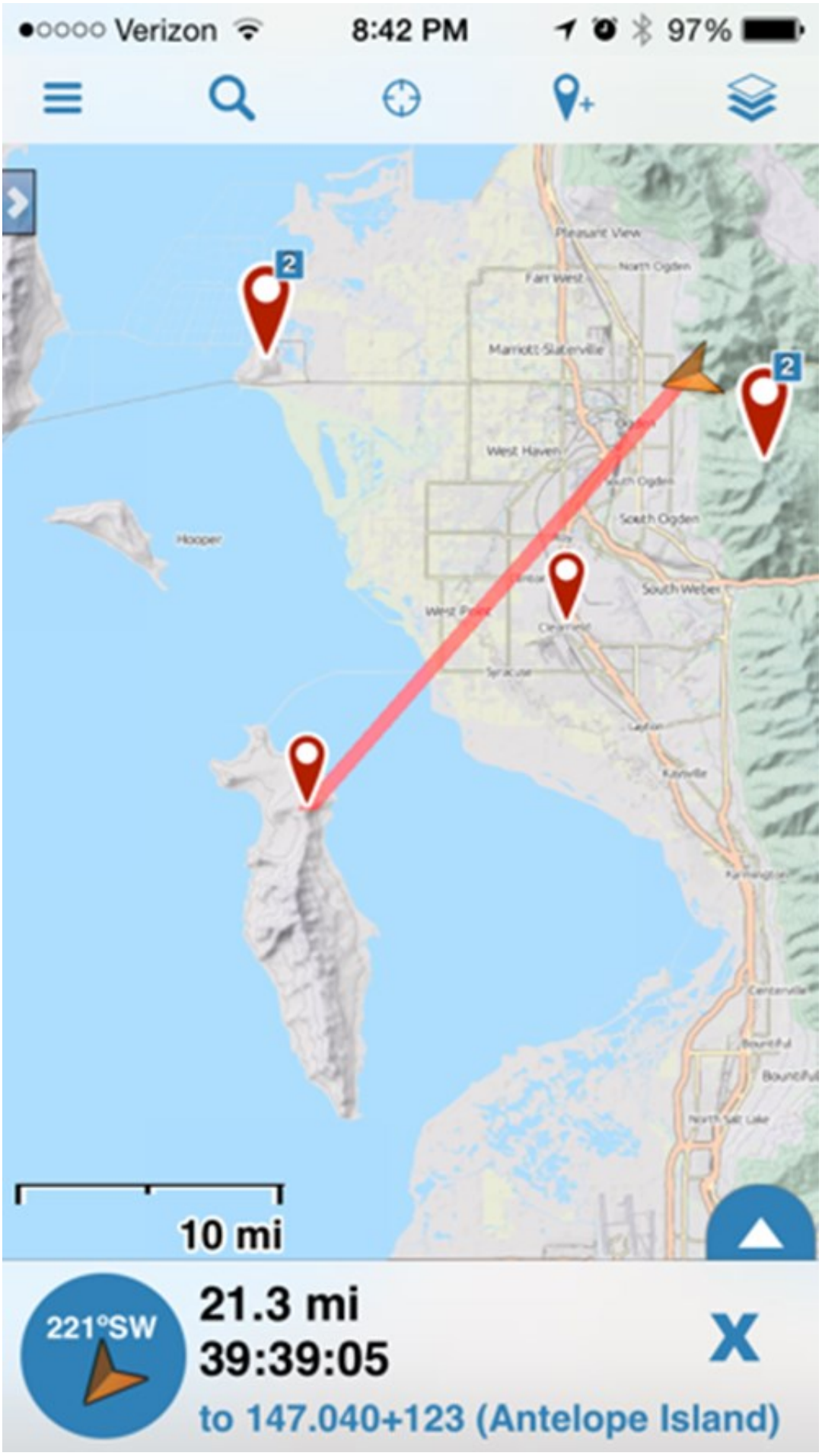
21.29 mi, 221°SW from me

41.01470, -112.20830

Altitude: 4,957 ft

CALL: K7DAV
SPONSOR: Davis County ARC / UVHFS
ERP: 50W
WIDE AREA: YES
EMERGENCY POWER: YES
NOTES: Closed autopatch. Link to law enforcement. This repeater may require a sub audible tone for access. Repeaters in this category are often run with no tone access, as conditions permit. This repeater does transmit the indicated tone and the user may program his/her tone squelch to use it.

Move Waypoint


Verizon
8:42 PM
97%
Pleasant View
North Ogden
Farr West
Marriott-Slaterville
West Haven
South Ogden
Hooper
South Weber
Clearfield
Kaysville
Centerville
Bountiful
North Salt Lake
2
2
10 mi
21.3 mi
39:39:05
221°SW
to 147.040+123 (Antelope Island)

Resources:

Utah Repeater Map - http://lmemmott.info/UtahRepeaterMap.htm

GPX (GPS Exchange Format) - https://en.wikipedia.org/wiki/GPS_Exchange_Format

RepeaterBook - http://www.repeaterbook.com

Gaia GPS (my favorite GPS smartphone app for iOS and Android) - https://www.gaiagps.com

MotionX GPS (another great GPS smartphone app for iOS) - http://gps.motionx.com

Garmin BaseCamp (FREE desktop mapping software that can create GPX files, GPS device is not necessary) - http://www.garmin.com/en-US/shop/downloads/basecamp

My GPX Reference File - INSERT LINK HERE (FILE TO BE UPLOADED TO OARC WEBSITE)

It is my hope that this information will be found useful to others. Feel free to contact me (k2ctc@yahoo.com) with any questions or comments.

73, Chris (K2CTC)

ANNOUNCEMENTS

Next Club Meeting:

3rd Saturday of each Month

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

Meeting/Activity:

See notices above

Talk-in: -146.82 (pl 123.0)

Check OARC web site for details

www.ogdenarc.org

Please invite a friend to join you. You do not have to be a member of the club to participate in our club meetings or activities. We invite all to join us.

If anyone is interested in doing a presentation on something or just have something unique to show at the meetings. - Please get a hold of any of the officers and let us know.

Next Weber Co VE Test Session:

1st Wednesday Feb, Jun & Oct

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

Time: 06:00 PM *Walk-ins allowed*

Location: Permanent location

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

Contact: VE Liaison:

Rick Morrison W7RIK (Liaison)

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

Jason Miles KE7IET (IT)

Cost: $ 14.00

Two forms of **ID**, one of which must be a **picture ID**.
For "Upgrades" bring current **license** and a **copy** of current license, and any **CSCE**'s

Most **calculators** allowed. Calculator memories must be cleared before use.

Club Web Site

Be sure to visit our club web site.

www.OgdenARC.org

Club membership is open to anyone interested in Amateur Radio. You do not need an amateur license to join us. Dues are used to operate the club, field day activities, and repeater equipment maintenance.

Club Call Sign

Listen to the club repeaters for this very familiar CW ID. You do know Morse Code don't you?

W7SU

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

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

See you there.

OARC REPEATERS

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

OTHER AREA REPEATERS

FREQ	CLUB	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-	GSARC	123.0	Brigham City
145.430-	GSARC	123.0	Brigham City
147.220+	GSARC	123.0	Brigham City
448.300-	GSARC	123.0	Brigham City
146.640-	BARC	none	Logan
146.720-	BARC	103.5	Mt Logan
147.260+	BARC	103.5	Promontory Pt
449.625-	BARC	103.5	Mt Logan
145.250-	WSU	123.0	* coming soon
449.250-	WSU	123.0	* coming soon
145.490-	K7HEN	123.0	Promontory Pt
146.920-	N7TOP	123.0	Promontory Pt
449.775-	N7TOP	123.0	Promontory Pt
147.100+	Morgan	123.0	Morgan Co
448.825-	IRLP/Echo	123.0	Clearfield City
449.950-	IRLP	123.0	Clearfield City
449.425-	IRLP	100.0	Nelson Peak
147.360+	Summit Co	100.0	Lewis Peak

AREA CLUB MEETINGS & WEB SITES

CLUB	WEB SITE	DATE/TIME	LOCATION
OgdenARC	ogdenarc.org	3rd Saturday 09:00 am	Check OARC web site …
WC ARES	ogdenarc.org/ join.html#ares	2nd Thursday 06:30 pm	Weber Co. Library Ogden Utah
WC Sheriff Comm-O		1st Saturday 10:00 am	Weber Co. Sheriff Complex West 12th Street Ogden Utah
Barc	barconline.org	2nd 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	2nd Saturday 10:00 am	Davis Co. Sheriff Complex Farmington Utah
NU Ares	home.comcast.net/ ~noutares/	3rd Wednesday 7:00 pm	Cache Co. Sheriff Office Logan Utah
Uarc	xmission.com /~uarc/	1st 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	3rd 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/	1st Tuesday 7:00 pm	Tooele County Courthouse Tooele Utah
WsuArc	https:groups.google.com/forum/#!forum/wsuarc	3rd 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	147.100 +123.0
Sunday @ 9:00 PM	UARC Info net	146.620- no PL tone required
Monday @ 9:00 PM	2-meter SSB net	144.250 Mhz 2-meter USB
Tuesday @ 8:00 PM	Weber ARES	448.600 - 123.0
Tuesday @ 8:00 PM	VHF Society Swap	147.120 + 100.0
Tuesday @ 9:00 PM	Bridgerland ARC	147.260 + 103.5
Wednesday @ 8:00 PM	GS ARC	145.290-, 145.430-, 448.300- (all 123.0)
Wednesday @ 8:30 PM	CSERG	145.770 simplex
Wednesday @ 9:00 PM	No. Utah 10m HF net	28.313 Mhz HF USB
Wednesday @ 9:00 PM	6-meter SSB net	50.125 Mhz 6-meter USB
Thursday @ 6:30 PM	Davis Co Elmers Net	147.040 + 123.0 New Hams
Thursday @ 8:00 PM	Weber State ARC	146.820 - 123.0 (coming soon)
Thursday @ 8:00PM	State RACES VHF/IRLP	145.490 - 123.0, 146.680 - 123.0 3rd 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 3rd Saturday – odd months only
Saturday @ 11:00AM mst	QCWA net HF	7.272 Mhz HF LSB

OARC OFFICERS

President: Gil Leonard NG7IL

Vice Pres: Jason Miles KE7IET

Secretary: Larry Griffin AD7GL

Treasurer: John Shupe K7DJO

Program Director:
Pete Heisig WB6WGS

Activity Director:
Mike Taylor KE7NQH

"WATTS NEWS" e-Magazine

NL Editor: Val Campbell K7HCP

"OARC" web site

Webmaster: Val Campbell K7HCP

OTHER CLUB APPOINTMENTS

VE Liaison: Richard Morrison W7RIK
Jason Miles KE7IET (IT)

Repeater Engineers: Mike Fullmer KZ7O
Scott Willis KD7EKO

Photographer: John Shupe K7DJO

QSL Manager: John Shupe K7DJO

Historian/Librarian: Kent Gardner WA7AHY

Equipment Manager: Val Campbell K7HCP

Club Call Sign Trustee: Larry Griffin AD7GL

Advisors: Stan Sjol W0KP
Mike Fullmer KZ7O
Kent Gardner WA7AHY
Kim Owen KO7U
Larry Griffin AD7GL

---

73 es cul de W7SU

www.OgdenArc.org