



# WATTS NEWS



**The Best of Amateur Radio**

## OARC e-Magazine

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

**APRIL 2015**

**Next Club Meeting/Activity**

**Meeting: Riverdale Fire Station**



**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**

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## **PREVIOUS CLUB MEETING**

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**Mike Collett, K7DOU**

**Civil Air Patrol (CAP) : Introduction  
CAP Communications and Grid Search**

**Riverdale Fire Station  
3rd Saturday 21 March 2015  
9:00 AM**

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## **NEXT CLUB MEETING/ACTIVITY**

### **Meeting:**

**Dave Mamanakis KD7GR**

**Ham Radio vs Linux & Mint**

**Computer Operating Systems and Apps**

April will bring us Dave Mamanakis, KD7GR, and Linux operating systems with integration to ham radio. If you ever had questions about Linux, this is the meeting to attend.

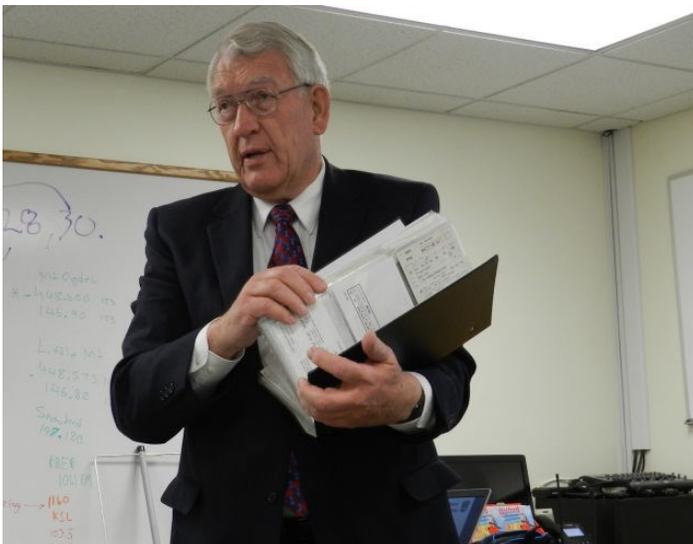
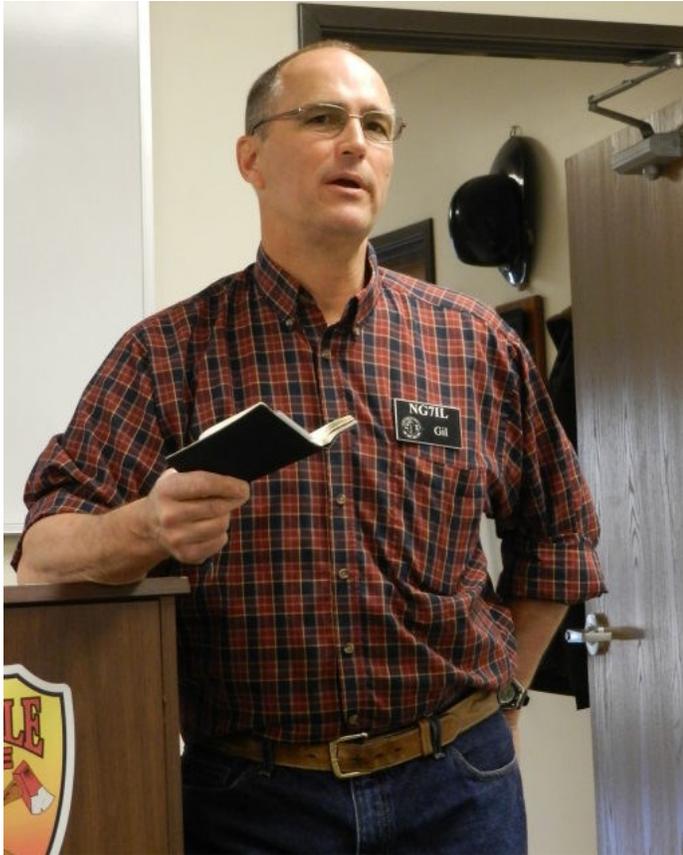
**Riverdale Fire Station  
3rd Saturday 18 April 2015  
9:00 AM**

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## PREVIOUS MEETINGS PICS

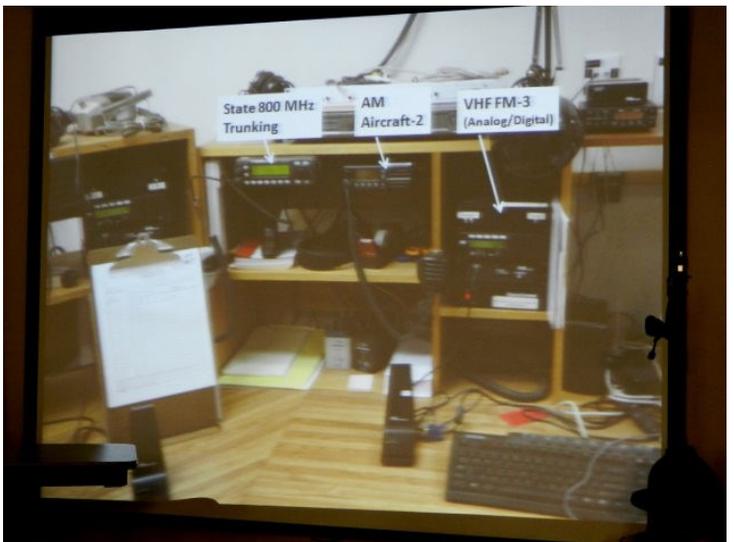
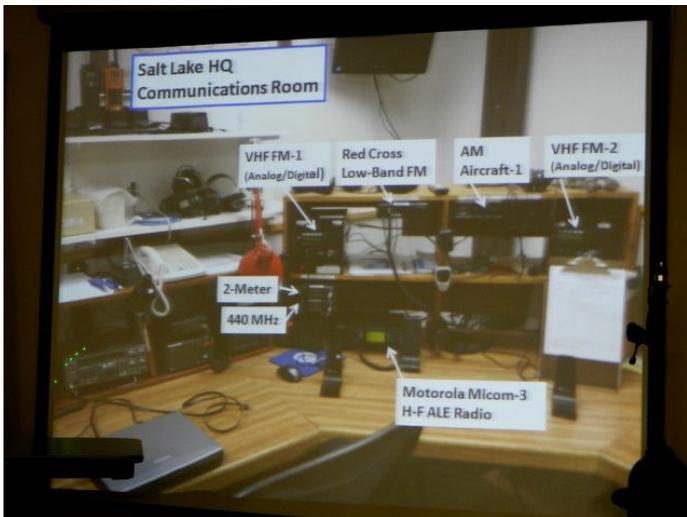
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Photos by ... John Shupe K7DJO











# Back in the Day...



# The Equipment We Use Today

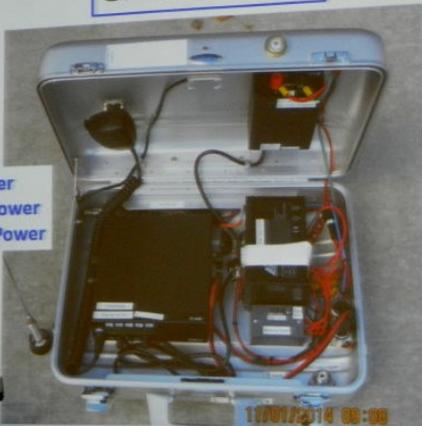
## In the Air



## Mobile, and On the Ground



# Grab & Go Kit



- A-C Power
- 12VDC Power
- Battery Power

11/07/2014 08:08

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## OARC COMING EVENTS

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Golden Spike Special Event Station ... [details](#) **NEW!**

**Fri 08 May & Sat 09 May 2015**

Utah HamFest 2015 (Ruby's Inn) ... [details](#) **NEW!**

**Friday 31 July—Sunday 02 August 2015**

## QRM from Gil



**Gil Leonard NG7IL**

It's said you learn something new every day, I know that I do. Now, if I could only remember it all. I picked up some tips on Direction Finding, DF, antennas from our speaker, Mike Collett, K7DOU. After the meeting, some of the club members went to lunch with Mike. The conversation stayed focused mostly on Ham radio topics but one thing that caught my attention was how old is the Ogden Amateur Radio club? There was a bit of speculation before the topic moved on.

A few days later, I receive an e-mail from our club historian Kent Gardner, WA7AHY. Attached to this e-mail was a document from 1982 written by Gordon Howes, KE7QV, and Lee Ernstom, WA7HQD, relating a story written by Dr. W.G. Gardner, W7SU. You will find a copy of this story inside this month's edition of Watts News. In the story, Dr. Gardner related the inception of the club and the date it was formed as May 1921. There is far more information than this but you are going to need to read it for yourself.

That makes our club 94 years old this year. What an amazing accomplishment. Did you ever wonder where the club call sign, W7SU, came from? Now I have a better understanding and a deeper respect for the club and its origins. As I shared this story I found that Dr. Gardner has a profound impact on my family history. I hope this story moves you like it did me. We can be truly proud of this club and its origins.

I wish to thank the board members and club members for their support and generous donations towards the repeater fund. When we began the March meeting the club was in the position to spend enough money to purchase a new repeater from Yaesu, the new Fusion System DR 1X, a digital and analog capable repeater that would allow digital operation without excluding existing analog users. It was on promotion and appeared that the club could actually purchase two for the special pricing. Everyone liked the plan and supported the purchase. In the meeting Mel Parkes, NM7P, the president of the Utah VHF society was present. The Utah VHF society offered additional funds to use towards the repeater funding. All told, by the time everything was said and done, the club had a new decision to make.

The following Monday John Shupe, K7DJO, and myself were filling out the needed paperwork and sent it in to Yaesu for approval. We were rewarded almost immediately with an acceptance letter for the program. I made personal contact with Yaesu and confirmed that the club was eligible to purchase four of their repeaters for the promotional price. This was possible thanks to the contribution from the Utah VHF society, an anonymous club member and the generous donations from many other members.

It is unknown at this time when the new repeaters will be on the air. The response to the promotion by Yaesu has them backlogged a couple of months. This promotion came at the right time. I learned the Little Mountain 146.820 repeater is back in the hands of one of our repeater engineers, Mike Fullmer, KZ7O. It seems this workhorse is in need of more repair and looks like it's time to put it out to pasture. Thank you Mike, for helping this repeater cross the finish line.

If you have ever wondered about the Linux operating system and how it can be implemented into the Ham shack, you won't want miss club meeting in April. Dave Mamanakis, KD7GR, will be covering the different versions and help us decide which one to use.

There is plenty more fun and exciting things coming up in the months to follow, be sure to mark your calendar and join us.

73 de Gil

## **CLUB NEWS**

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

### **New Comers/Visitors Welcome**

**Martin Peterson — N7RXK**

**Mickey Lind — KG7PRB**

## CLUB NEWS

**Don't miss the FEATURE ARTICLE this month,  
later in this newsletter.**

*The Ogden Amateur Radio Club*

*History*

*Established 1921*

## CLUB NEWS

**The Golden Spike Special Event is coming up soon.**

**Friday 08 & Saturday 09 May 2015. Sign Up Now!**

| OARC Golden Event Station (W7G) 2015 - Sign up |                  |                  | Contact Mike Taylor to sign up!<br>801-731-3608 - metaylor@xmission.com |
|--|------------------|------------------|---|
| Antenna setup- Thursday evening 3:00 PM        |                  |                  | KENT - WA7AHY   |
| Antenna setup- Friday Morning 7:00 AM          |                  |                  | The 9:00am GROUP plus   |
| Friday - 8 May 2015                            | Name - Call Sign | Name - Call Sign | Name - Call Sign  |
| 9:00 AM  | LARRY - AD7GL    | PETE - WB6WGS    | PETER - KE7TQV  |
| 11:00 AM                                       | LONNIE - N0INC   | MIKE - KZ7O      | JOAN - N7OLZ  |
| 1:00 PM  | DAVE - KD7GR     | JERRY - KG7IGW   | CEVA - KE7IBV   |
| 3:00 PM  |                  |                  |   |
| Saturday - 9 May 2015                          | Name - Call Sign | Name - Call Sign | Name - Call Sign  |
| 9:00 AM  | JASON - KE7IET   |                  |   |
| 11:00 AM                                       | JASON - KE7IET   | STEVE - K7EMD    |   |
| 1:00 PM  | RICK - N7EGA     |                  |   |
| 3:00 PM  | MICKEY - KG7PRB  |                  |   |
| Antenna Take down Saturday after closing       |                  |                  | The 3:00 pm GROUP plus  |
| 5:00 PM  |                  |                  |   |

## **CLUB NEWS**

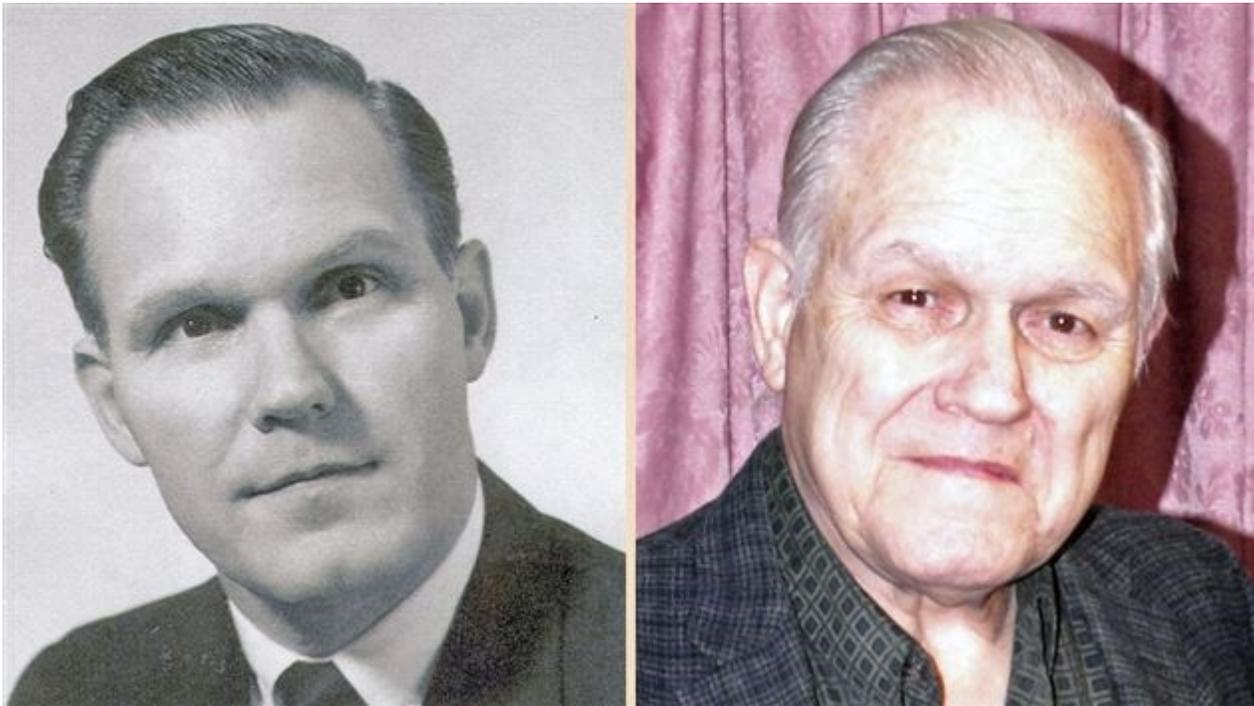
**We wish to acknowledge Mel Parks NM7P from the ARRL and Utah VHF Society that visited our March meeting and spoke to us briefly about the upcoming ARRL Section Manager election. All ARRL members should be on the lookout for a mail –in ballot in the near future. Be sure to cast your vote and return the ballot promptly.**

**Mel also announced that the Utah VHF Society has made a \$500 donation to OARC in support of our current effort to upgrade our repeater systems at both Little Mountain and Mount Ogden repeater sites to a state of the art dual Analog/Digital repeater system.**

**Thank you Mel and the Utah VHF Society.**



## CLUB NEWS



### Lowell Streeper Maw (sk)

October 7, 1928 ~ March 31, 2015

Our loving husband, father, grandfather, brother and friend, Lowell Streeper Maw, passed away on March 31, 2015. He was born to Glen Jones Maw and Ethelyn Streeper on October 7, 1928 in Ogden, Utah. He married his sweetheart, Joyce Ann Bramwell, on August 19, 1966 in the Salt Lake LDS Temple.

He graduated from Ogden High School and Weber College. He was employed at several local businesses, Defense Depot Ogden and Hill Air Force Base, where he worked in electronic repair and material management.

He was an active member of the LDS Church and held several positions on the ward level.

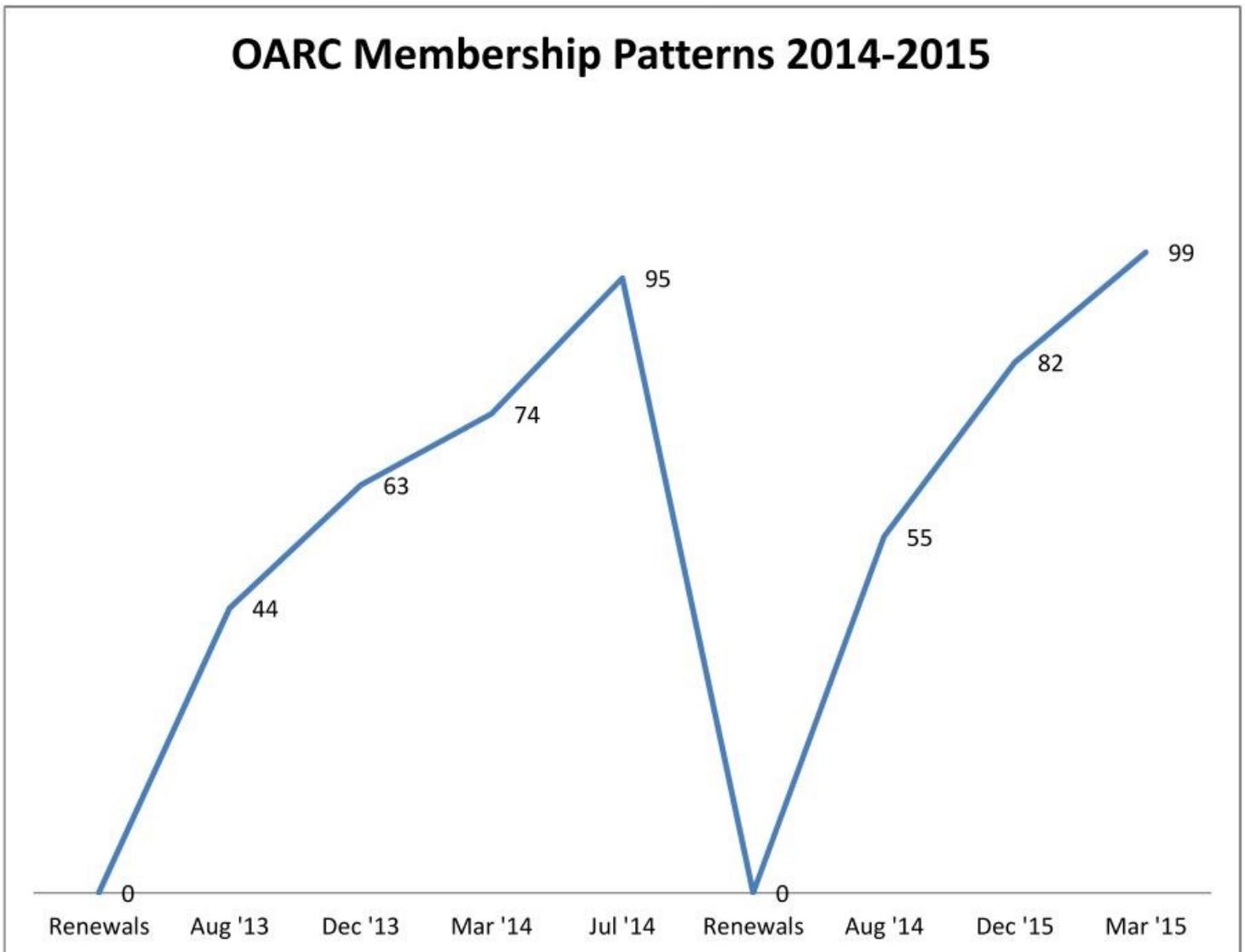
He enjoyed stamp collecting, HO model trains, astronomy and amateur radio. He had several positions in the Ogden Amateur Radio Club (1950 to 1960) and had a long service in the Army Military Affiliate Radio System.

He is survived by his wife; Joyce; children, John B. (Laurie) Maw, Lori Thompson Maw and Lori Ann (Charles) Putnam; brother and Grant S. (Mildred) Maw and several grandchildren. He was preceded in death by his parents; and children, William Glen Maw and Jamie Maw Strasters.

Funeral services will be held at 1 p.m. on Friday, April 3, 2015 at the Foothills Ward Chapel, 1475 Cahoon. A viewing will be held on Thursday, April 2 from 6 to 8 p.m. at Myers Ogden Mortuary, 845 Washington Blvd and prior to services from 12 to 12:40 p.m. at the church. Interment will be at the Ogden City Cemetery.

## CLUB NEWS

Earlier this year the OARC board was contemplating how to get the club membership to exceed the 100 mark for the first time ever (as far as anyone in recent times is aware of). Well, the 1st of March marks the half way point in our membership year (which runs August thru August) and we are now just one member short of our goal. WAY TO GO OARC MEMBERS!!!



**I wonder who our 100 th member will be ????**

## 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.



- KE7VVT, John
- KF7HNU, Ralph
- KG7IHA, Tom
- KG7KFD Tony
- KG7LIG, Andrea

- KD7GR, David
- KD7RPT, Sparky
- KG7PRB, Mickey
- KG7QNN, Scott
- KG7QNO, Ellen
- KG7QNR, Marcie



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## Club Swapmeet

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**“SALE” or “WANTED” ITEMS NEEDED**

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

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

## FEATURED ITEMS

### ITEM #161

**WANTED to BUY:** Power Supply

Power Supply to use with mobile transceiver in my new "shack." (a portion of a closet i was able to clear out). Doesn't need to be fancy; Does need to be inexpensive, not cheap. 100 watt max. Would like to have voltage and current meters. If you have an orphan power supply needing a new home, please write to me.

**PRICE: \$ (TBD)**

**CONTACT:** Peter Johnson KG7QOA, 801-618-9628, [peter.g.johnson@gmail.com](mailto:peter.g.johnson@gmail.com)

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### ITEM #159

**FOR SALE:** IC-718 HF Transceiver

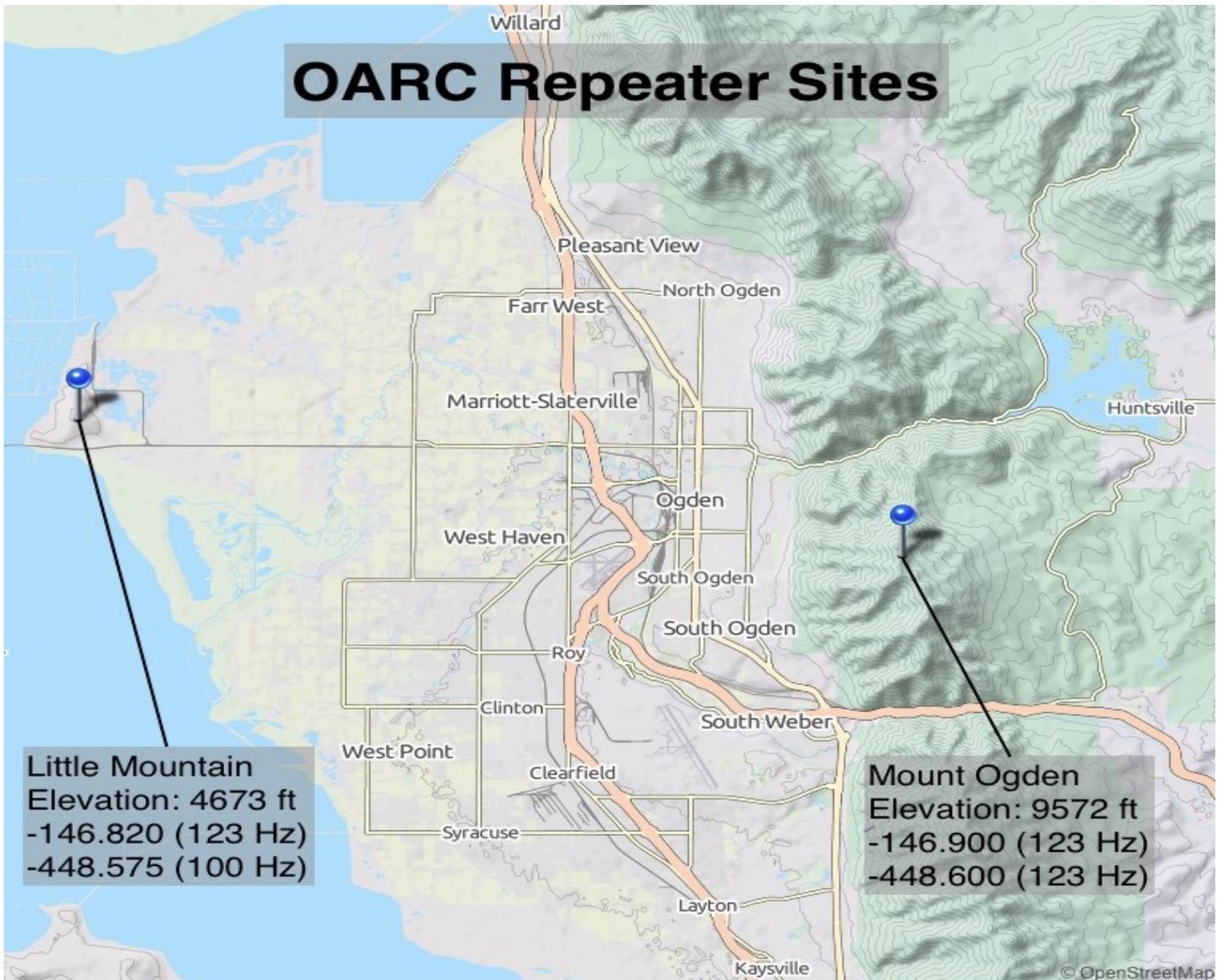
In like new condition in original box with all manuals.

Covers 160 - 10 Meters with all modes. Has general coverage receiver from 0.5 through 30 Mhz.

**PRICE: \$450**

**CONTACT:** Stan Sjol W0KP, 801-985-3651

## 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.**

**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 future e-newsletter release notices and much more like CHAT items of interest.

You can also send/receive notices to/from 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 licensed club 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 contact the club treasurer 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

Another "twist" in the digital future of Ham Radio.

HamRadioNow Episode 193

# DV is Exploding

**David Rowe VK5DGR updates CODEC2 and FreeDV, introduces a FreeDV "Speaker-Mic", and is developing a disruptive DV system for VHF/UHF**

**David Rowe VK5DGR is the ham who developed CODEC2\*, and CODEC2 changes everything.**

So, is this a click-bait title, or a valid prediction?

In this program, David talks to me about the **SM-1000 "speaker-mic"**, a little box he's developed to let hams use FreeDV digital voice without a computer. The box does all the processing and has all the input/output connections, so you can run digital voice over your SSB radio with no computer attached. The SM-1000 will be available soon for about \$200.

We also talk about **improvements to FreeDV and CODEC2** that David expects will make digital voice work as well as, and maybe a little better than SSB with weak signals or noisy HF conditions. *Today*, SSB can be copied below the level that a DV signal drops out, but it's somewhat rough listening. *Yesterday*, you needed a lot more signal for DV. *Tomorrow*: parity with SSB, or maybe *advantage: DV*. Yes, there are plenty of issues left. Voice quality (many hams don't like the 'robotic' sound or the fidelity). Contest/DX pileups. David readily admits that SSB has been around for so long on HF because it works great in that hostile environment. He sees it as a challenge.

Finally, David tells me about a VHF/UHF project he's working that, at my first look, has the potential to *disrupt everything in repeaters*. It won't happen overnight, and given ham's investment in analog FM and even the newer DV modes from D-STAR to DMR and Fusion, it might not really happen at all. But here's what David is aiming at:

- Signal to Noise that's better than FM by 10 dB
- 5 kHz bandwidth

TDMA "time-slice" modulation that will allow for "on-channel" repeaters.

By "on-channel" I mean repeaters that don't need an "input" channel. As David described it, the repeater receives you for about 40 milliseconds, then retransmits what it just received. When you're transmitting, your radio transmits for the 40 ms that the repeater is receiving, then stops while the repeater transmits. When you're receiving, the software smooths it all out so it sounds like a continuous transmission. David didn't say this, but I suppose it would allow you to monitor your signal thru the repeater in real time. This also means that a repeater works without a duplexer, and without some of the shielding needed to allow a high-power transmitter to operate right next to a sensitive receiver.

The disruptive part, though, is the 5 kHz bandwidth and no separate receive frequency. Cheaper, better repeaters that use far less spectrum will allow for dozens more repeaters to go unused everywhere. OK, that's a snarky reference to the common complaint about unused repeaters in ham radio, but in commercial and public safety, where spectrum is in extreme demand, it really could change everything. And they have money. David says that he needs to develop hardware for this because current hardware won't handle the DV signal to make this work. His time-frame for a working prototype: end of this year. And his *vision* is a repeater that's as simple as "an HT you stick up on the hill." You might want something a bit more robust for your full-time repeater, but for fast emergency use... wow. *On the other hand*, I can see *every* DV mobile and HT having a "repeater" mode built-in. I see equal potential for utility and chaos on our VHF/UHF bands! Would we be up to the challenge?

Yes, DMR/MotoTRBO uses TDMA. They don't use it for on-channel repeaters. They use it to allow two simultaneous conversations to occupy a single RF channel, but it still needs an input and an output frequency (and a duplexer), and occupies 12.5 kHz of RF bandwidth.

**So, watch the show, and see the future...**

\*CODEC2 is the open-source software that digitizes speech into a very narrow, or slow, stream of data. The result: a highly useful, if a bit "robotic" sounding version of your voice that can be sent over a typical SSB transmitter, but using about half the RF bandwidth of typical SSB speech (2.5 kHz for SSB, 1.2 kHz for the DV). David's been working on it for about 5 years, and he's far from done. It works very well today. It'll work even better tomorrow. Did I mention it's open-source? Yes, there are proprietary codecs that do this. The AMBE codecs used by D-STAR, DMR and Fusion are the most common today. Is CODEC2 better? I'll leave the technical arguments to those with the chops to make them. None of them are done. They're all being improved. CODEC2 is free, and the hardware that uses it, typically SDR like FlexRadio, can be updated as new versions are released.

Amateur Radio.com



## Two More Radio Amateurs Join International Space Station Crew

The ISS ham radio population expanded to three, following the arrival of NASA astronaut Scott Kelly and Russian cosmonauts Mikhail Kornienko, RN3BF, and Gennady Padalka, RN3DT, on March 28 (UTC). Kelly, 51, and Kornienko, 54, will remain aboard the ISS for 1 year -- the longest space mission ever assigned to a NASA astronaut.

European Space Agency Astronaut Samantha Cristoforetti, IZ0UDF, will head back to Earth in May, after Kjell Lindgren, KO5MOS; Oleg Kononenko, RN3DX, and Kimiya Yui arrive at the ISS as part of a scheduled crew rotation. Cristoforetti has conducted several Amateur Radio on the International Space Station school contacts during her ISS duty tour.



## FCC Enforcement Bureau Field Resources Poised to Shrink

03/11/2015

According to an internal FCC Enforcement Bureau (EB) memorandum, the Bureau plans to ask the full Commission to cut two-thirds of its field offices and eliminate nearly one-half of its field agents. At the same time, the Bureau would develop a so-called “Tiger Team” of field agents as a flexible strike force it could deploy as needed. In the March 10 memorandum to Enforcement Bureau field staff — obtained by ARRL and others — EB Chief Travis LeBlanc and FCC Managing Director Jon Wilkins cited the need to take “a fresh look” at the Bureau’s 20-year-old operating model in light of technology changes and tighter budgets. ARRL CEO David Sumner, K1ZZ, expressed dismay at the proposals.

“The ARRL is concerned that there is already no sense of urgency in the FCC’s enforcement activities targeting spectrum polluters, such as utilities with noisy power lines, or the few violators in our own ranks,” Sumner said. “It is troubling to see recommendations for such drastic reductions in the Commission’s geographic footprint and the number of field agents at a time when the Field staff is facing ever-increasing challenges.”

# GUEST ARTICLE

by KB6NU

## Should we weep for amateur radio?

On an amateur radio mailing list that I subscribe to, one fellow wrote, "I weep for the state of amateur radio in the US, since this dispatch is apparently necessary..." He then pointed to an article on the ARRL website that reminded hams that while their local time may be switching to daylight time, Universal Coordinated Time did not change (<http://www.arrl.org/news/view/change-local-clocks-this-weekend-but-not-utc>).

The implication, of course, was that we have dumbed down ham radio so much that a reminder like this was necessary.

This thread went on and on, eventually garnering 17 different replies. Before it morphed into a discussion of whether or not DST is a good idea in the first place, the replies echoed the sentiment in the original e-mail:

"It's become a push button, nanny state world, what do you expect, competence?"

"We are truly in a time of appliance operating, not only in ham radio, but in practically every aspect of our lives. :-("

At first, I had the same reaction. I thought to myself, "How dumb are we getting in ham radio, if guys have to be reminded that UTC doesn't change when we switch to daylight savings time?" After thinking about this for a while, though, I've completely change my mind on this.

I work with a lot of newcomers to amateur radio, and many of them just don't know how UTC works. This is not their fault—they just haven't had the opportunity to deal with UTC. What these old timers (old farts?) didn't realize is that the ARRL article is not directed at them, but at the newcomers to ham radio.

I'll even go one step further. It's easy for us old-timers to be dismissive of newcomers' lack of knowledge, and then complain that amateur radio is getting dumber, but knee-jerk reactions don't usually help anyone involved. A much better approach would be to roll up your sleeves and teach them something. The only way newcomers are going to get to be old timers like us is if we help them learn stuff like this.

## FEATURE ARTICLE

# *The Ogden Amateur Radio Club*

## *History*

### *Established 1921*

*On July 12, 1982, Gordon Howes, KE7QV, and Lee Ernstrom, WA7HQD, talked with Dr. W. G. Garner, W7SU, at his home. The following is an excerpt of a story written by the hand of Dr. Garner, which relates how the Ogden Amateur Radio Club was formed. His story marks the OARC as one the oldest organized amateur radio clubs in Utah, perhaps even in the nation.*

In order to make the record more complete and perhaps better understood, it is necessary to delve into a bit of personal history and some of the early day history of amateur and commercial radio activities, as I know them from personal experience, and early association with these arts and sciences in amateur and commercial fields.

As far back as I can clearly remember, it is difficult to relate to a time or era in which I was not deeply interested in means of communication, other than by personal contact.

I learned the old Morse telegraph code at the grand old age of nine years (1911). I designed and built my own telegraph key and sounder the following year and communicated by telegraph over a land line strung on fence posts, with a neighbor boy living four houses away. I read everything I could lay my hands on relative to the then rather new means of communication, "wireless telegraphy". Marconi's experiments and inventions in wireless communications intrigued me greatly. I then resolved that someday, somehow, I would have my own wireless receiver and transmitter, and become a part of that wonderful means of communication in an amateur way. Many advances and discoveries were to take place in this new field, until my dreams of accomplishment in low power wireless communication could be realized.

Before high speed, reliable code communications could be achieved, on a worldwide basis, it was necessary for stations in the United States, (most of them government owned and operated) to make drastic changes in the characters (dots and dashes) of the code in use by such stations.

I am sure that most of you know or have heard of the great sea disaster, the sinking of the steamship "Titanic". This was at the time (1912) the largest and greatest passenger steamship ever built, "The Unsinkable Titanic". Its maiden voyage terminated by its sinking in the North Atlantic as a result of a collision with a gigantic iceberg.

All wireless stations in most of the world, excepting the United States, had adopted the International Morse Code as their means of communication. We stubbornly held on to the antiquated old Morse code in our communications systems. (There are about thirteen letters that differ in their components, dots and dashes, of the two codes.) This resulted in a considerable amount of confusion and somewhat hampered rescue operations when the Titanic went down.

As a result of this experience, the United States did away with the old Morse Telegraph Code and adopted the International Morse Code in radio communications.

I applied for examination to qualify for an operator and station license in the late winter of 1914 and in the early spring of 1915 I took and passed the examination and met the requirements for that license from the examining officer, "Mr. Redfern", Department of Commerce, Customs Office, Seattle, Washington, and was issued the station call of 7EW, Evanston, Wyoming. My first transmitter consisted of a Ford automobile spark coil, home made spark gap, an old telegraph key and a six volt storage battery. The receiver was a home made tuning coil with a silicon detector, 1000 Ohm Murdock receiver, and a home made 23 plate variable condenser. With this "sophisticated home made equipment", I was able to hear a ship at sea communicating with two other amateurs, (unlicensed) in the area. At the time, a transmitter that was deemed incapable of transmitting signals across state lines did not require a license from the Department of Commerce.

My next transmitter consisted of a 1/2 kW Thordason transformer with a secondary voltage of 10,000 volts, a large fixed spark gap and a heavier key for forming coded characters in dot and dashes. The old tuning coil in the receiver was replaced with a new home made variable coupler with primary and secondary windings, a new 43- plate condenser from Sears and Roebuck and a new and improved crystal detector known as a "crystaloy" detector. This device was adjusted by simply rotating a disc, instead of fishing with a "cat's whisker" for a sensitive spot in the silicon or galena detector.

About this time, Lee de Forest invented and developed his first two element vacuum tube to replace the silicon and galena detectors then in use. This was followed by the addition of a third element, called a grid that greatly increased the tubes detecting ability.

De Forest tubes were prohibitive "cost wise" to the amateur fraternity, but in a few months the audio-tron was produced for amateur use. This device was a cylindrical vacuum tube containing two elements for creating the electron stream, (one was a spare in case the other burned out). Three wires at one end protruded from the tube to form the connections for the double filament, and at the other end two wires protruded for the grid and plate connections. These tubes cost about \$5.00, a whopping sum for young experimenters in those days (1916). With the addition of this new detection device (vacuum tube detector) and my 1/2 kW transmitter, connected to a 40 foot two element antenna about 30 feet off the ground, I was able to make one of the first interstate communications between an amateur in Wyoming, and another in Utah. Myself in

Evanston, 7EW, and Marvin S. Andelin, 6JT was the first Utah Amateur station with the power and capability of conducting interstate communications. I was happy to be a participant in the first Wyoming-Utah amateur radio contact.

With the entry of the United States in World War I, all amateur stations were ordered closed down and completely dismantled. All amateur radio activity ceased in the United States until a few months following the close of World War I.

In the meantime, my family moved from Evanston, Wyoming to Ogden, Utah, (366 32nd Street) where in the early spring of 1918 I again applied to the Commerce Department for a new post-war amateur radio license and was issued the call letters and license 6OT for the Ogden address.

I was then serving my apprenticeship with the Lighthouse Electric Co., under the Supervision of George E Wilson and Clair Ecklund, owners of the Lighthouse Electric Company. After the required period of service and the qualifying examinations, I was awarded my journeyman electricians ticket. While at the Lighthouse Electric (approximately 2470 Washington Blvd), which at that time was located next door north of the old Washington Market, I received permission to install my radio equipment in a spare room above the store, and my antenna on the roof of their building. I applied for a license for this address and was issued the call 6OZ. The transmitter power had been increased one full kilowatt with the addition of a Benwood rotary spark gap and a sophisticated four tube receive one stage un-tuned R.F. amplifier, a regenerative detector and two stages of audio amplification were all home assembled from available commercial parts. The sensitivity results attained with this receiver were remarkable. In sensitivity, it was almost equal to the later sophisticated multi-tube jobs, available at a cost of several hundred dollars. With this equipment, communications were conducted with amateur stations in most of the United States

and the Territory of Hawaii. One reliable contact was with Major Lawrence Matt, on St. Catalina Island off the coast of California.

In 1921, I became well acquainted with Glen Quillinan at 2264 Lincoln Avenue. I had coached Glen in preparation for his radio license, which he acquired in the summer of 1920, call letters, 6AEZ. Since I had no permanent place to install my equipment, and Glen had no equipment, we built a cozy shack adjoining his father's garage. I installed my equipment there and operated under his call, 6AEZ. I was chief operator and Quillinan, the second operator. There were a few other young men in Ogden, some of whom had equipment or were in the process of acquiring some. One who had recently ordered his equipment was Ralph Flygare, who lived next door north of the old Weber Academy. Another was a young man named "Cook". I can not recall his first name. He had a 1/4 kW spark outfit at his father's residence on 24th Street between Adams and Jefferson, north side. Another was "Gene Crawshaw" K7LAA. We called him "Chickey". He was closely associated with Cook. There was one other located on Riverdale Road near Roy. I don't recall his name or call letters.

In the spring of 1921, I suggested to Quillinan that we call the known amateurs in the Ogden area together for the purpose of forming an active radio club, for the purpose of exchanging ideas and discussing progress and recent developments in the field of amateur radio communications. Quillinan thought the idea an excellent one and I personally contacted all the prospective members I knew. The meeting was called for a Saturday afternoon, about the middle of **May 1921**.

Those attending were:

W. Glen Garner

Glen Quillinan

Cook

Ralph Flygare

"Chickey" Crawshaw

One other (forgot name)

*Updated history 07 May 2007.*

*The following information was researched/found by Tim Larson, Ph.D. of the University of Utah. He found their names in the RSUS Edition July 1, 1916 (Radio Stations of the United States). This information was then provided to Kent S. Gardner, WA7AHY, OARC Historian updated as follows:*

W. Glen Garner

Glen Quillinan

Ralph Flygare

Gene "Chickey" Crawshaw

George W. Cook (6CW) 208 27<sup>th</sup> Street, Ogden, UT (.5 kW)

Howard D. Harris (6AJA) Ogden High School, Ogden, UT (1.0 kW)

As the founder and organizer, I was elected President, Glen Quillinan, Vice President and Treasurer. No secretary or historian was elected at that time. The President was to assume the duties of Secretary. The name of the club, by unanimous vote, was to be "**Ogden Amateur Radio Club**". Meetings were to be held once a month, at some specified place and time. The time, preferably Saturday afternoon, since most were available then. Thus then and there the Ogden Amateur Radio Club was born and remained active for the next few years.

I went to work for the Redfield Electric Company in charge of their radio department. While there I designed and built the transmitter, antenna and other equipment for radio station KFUR, Ogden's first broadcast station, which in later years became KLO. At that time I became studio director and chief announcer for radio station KFWA. "Browning" brothers station on Hudson Ave, Ogden, which position I held until the station was sold to an Idaho firm and moved to Idaho Falls, Idaho.

Radio Station and operator licenses held by Glen Garner cover a period of 67 years: 7EW, 6OZ, 6S1, 6ZAM, 7SU, Army 6SI, NAVY NOSJH, Air Force AF7SU, AFA5EW.

I suppose this pretty well qualifies me as being the oldest continuously active Amateur Radio Operator in the State of Utah.

### **Credits**

The following is a list of persons who in some way contributed material or past articles in the Watts New, which contributed to this project.

Project Inception and Original Author Brian K8BR  
Project Assistant to Brian Hayden N7JMF  
Project Consultant for Club Activities Jerry WA7ADK  
Historian Gordon KE7QV  
Repeater Trustee & Repeater Engineer John KC7UB  
Final Edit, Layout and Typesetting Eric AC7K

### **Club Officers**

#### **1921**

President W. Glen Garner & Secretary  
Vice President Glen Quillinan & Treasurer

-----End of Text from Original Document -----

Update ... received from Lee Ernstrom March 2015 via Val Campbell, K7HCP.

My call sign is WA7HQD (Lee Ernstrom), and Gordon Howes call was KE7QV.

I worked for Culligan Water Conditioning for 32 years and Dr Garner was one of my portable exchange water softener tank customers. This is how I got to know him and was able to arrange the interview with him. I also took a photograph of Dr Garner sitting at the controls of his ham station. I believe I still have that photograph if the club is interested, however, I may have given the photo to Stan Sjol, W0KP.

This "Chickey Crawshaw" referred to in the article on 24th street was actually Gene Crawshaw, K7LAA, and he was the guy who administered my Technician Class license test to me back in 1967 from which I got the call sign WA7HQD. The George Wilson, owner of the Lighthouse Electric Company was my uncle, married to one of my father's sisters until she died and then he married Electa. I just knew her as Aunt Elaine.

Lee (Doc) Ernstrom WA7HQD

Syracuse, Utah

Editor's note: A unit mentioned above was identified as a Thordason transformer. I did a search and found that it was probably a Thordarson transformer, but left the text as is to preserve what was probably common vernacular in those days.

*Printed, published in the OARC newsletter, Watts News, and posted to the OARC website (OgdenARC.org) April 2015.*

*Our thanks to Kent Gardner WA7AHY OARC Historian for making this happen.*

## ANNOUNCEMENTS

### Next Club Meeting:

**3<sup>rd</sup> Saturday of each Month**

The Ogden Amateur Radio Club meetings are usually held on the **3<sup>rd</sup> 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](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:

**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 12<sup>th</sup> Street Ogden Utah

### Contact: VE Liaison:

**Rick Morrison W7RIK** (Liaison)

[morrisonri@msn.com](mailto: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](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.

# 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.

| <b>OARC REPEATERS</b> |                   |       |                              |
|-----------------------|-------------------|-------|------------------------------|
| FREQ                  | CLUB              | TON E | LOCATION                     |
| 146.900-              | OARC              | 123.0 | Mt Ogden                     |
| 448.600-              | OARC              | 123.0 | Mt Ogden                     |
| 146.820-              | OARC<br>"Talk-in" | 123.0 | Little Mtn<br>(w/auto patch) |
| 448.575-              | OARC              | 100.0 | Little Mtn<br>(w/auto patch) |

| <b>OTHER AREA REPEATERS</b> |           |       |                 |
|-----------------------------|-----------|-------|-----------------|
| FREQ                        | CLUB      | TON E | 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               | <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/<br/>join.html#ares</a>                                | 2 <sup>nd</sup> Thursday 06:30 pm                       | Weber Co. Library<br>Ogden Utah                                      |
| WC Sheriff<br>Comm-O   |  | 1 <sup>st</sup> Saturday 10:00 am                       | Weber Co. Sheriff Complex<br>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<br>200 North 1400 West Logan Ut           |
| CSERG                  | <a href="http://dcarc.net/ares.htm/">dcarc.net<br/>/ares.htm/</a>  | Last Wednesday 8:30pm                                   | Clearfield City Hall<br>Clearfield Utah                              |
| DCarc                  | <a href="http://dcarc.net">dcarc.net</a>   | 2 <sup>nd</sup> Saturday 10:00 am                       | Davis Co. Sheriff Complex<br>Farmington Utah                         |
| NU Ares                | <a href="http://home.comcast.net/~noutares/">home.comcast.net/<br/>~noutares/</a>                                | 3 <sup>rd</sup> Wednesday 7:00 pm                       | Cache Co. Sheriff Office<br>Logan Utah                               |
| Uarc                   | <a href="http://xmission.com/~uarc/">xmission.com<br/>/~uarc/</a>  | 1 <sup>st</sup> Thursday 7:30 pm                        | UofU EMC Bldg Room 101<br>Salt Lake City Utah                        |
| GSarc                  | <a href="http://Ubetarc.org">Ubetarc.org</a>   | Check Website   | Check Website  |
| Utah DX<br>Association | <a href="http://udxa.org">udxa.org</a>   | 3 <sup>rd</sup> Wednesday<br>check web page for details | check web page for details<br>Salt Lake City area                    |
| UvhfS                  | <a href="http://ussc.com/~uvhfs/">ussc.com<br/>/~uvhfs/</a>  | Each Tuesday 8:00 pm<br>(refer to web site)             | Weekly 2 meter net<br>(no eye ball meetings)                         |
| WDArc                  | <a href="http://westdesertarc.org/">westdesertarc.org/</a>   | 1 <sup>st</sup> Tuesday 7:00 pm                         | Tooele County Courthouse Tooele Utah                                 |
| WsuArc                 | <a href="https://groups.google.com/forum/#!forum/wsuarc">https://groups.google.com/forum/#!<br/>forum/wsuarc</a> | 3 <sup>rd</sup> Thursday 5:30 pm                        | WSU Blding #4 Room ?<br>Ogden Utah                                   |

## LOCAL AREA NETS

| DATE                     | CLUB                    | FREQ  |
|--------------------------|-------------------------|---|
| Daily @ 12:30 PM mt      | Utah Beehive net HF     | 7.272 Mhz <b>HF LSB</b>   |
| Daily @ 07:30 PM mt      | Utah Code net HF        | 3.570 Mhz <b>HF CW</b>  |
| Daily @ 02:00 UTC        | Utah Farm net HF        | 3.937 Mhz <b>HF LSB</b>   |
|                          |                         |   |
| Sunday @ 8:45 AM         | Ogden Old Timers HF net | 7.193 Mhz <b>HF LSB</b>   |
| Sunday @ 7:30 PM         | 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 <b>2-meter USB</b>  |
|                          |                         |   |
| <b>Tuesday @ 8:00 PM</b> | <b>Weber ARES</b>       | <b>448.600 - 123.0</b>  |
| Tuesday @ 8:00 PM        | VHF Society Swap        | 147.120 + 100.0   |
| Tuesday @ 9:00 PM        | Bridgerland ARC         | 147.260 + 103.5   |
|                          |                         |   |
| Wednesday @ 8:00 PM      | 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 <b>HF USB</b>  |
| Wednesday @ 9:00 PM      | 6-meter SSB net         | 50.125 Mhz <b>6-meter USB</b>   |
|                          |                         |   |
| Thursday @ 6:30 PM       | Davis Co Elmers Net     | 147.040 + 123.0 <b>New Hams</b>   |
| Thursday @ 8:00 PM       | Weber State ARC         | 146.820 - 123.0 (coming soon)   |
| Thursday @ 8:00PM        | State RACES VHF/IRLP    | 145.490 - 123.0, 146.680 - 123.0<br>3 <sup>rd</sup> Thursday - even months only |
| Thursday @ 8:30 PM       | Davis ARES              | 147.420 = simplex   |
| Thursday @ 9:00PM        | Wasatch Back Net        | 147.360 + 100.0   |
|                          |                         |   |
| Saturday @ 8:00AM mst    | RACES State HF          | 3.920 Mhz <b>HF LSB</b><br>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: 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

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**73 es cul de W7SU**

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