

WATTS NEWS



The Best of Amateur Radio

OARC e-Magazine

www.OgdenArc.org

SEPTEMBER 2026

Next Club Meeting/Activity/Events

Look Inside



Dave Mamanakis KD7GR
President



Paul Petty
Vice President



Brian Nielson
Secretary



Mike Fullmer KZ7O
Treasurer



Don Burris KI7UAO
Program Director



OPEN
Activity Director

John Anderson N6JA
Newsletter Editor



Val Campbell K7HCP
Webmaster

OARC Website Masthead

www.OgdenArc.org

OARC OFFICERS

President: Dave Mamanakis KD76GR

Vice President: Paul Petty KM7GKZ

Secretary: Brian Nielson KJ7PWI

Treasurer: Mike Fullmer KZ7O

Program Director: Don Burris KI7UAO

Activity Director: OPEN

OARC ADVISORS (past presidents)

Gary Liptrot N7ZII

Mike Fullmer KZ7O

Kent Gardner WA7AHY

Kim Owen KO7U

Gil Leonard NG7IL

Jason Miles K7IET

Dave Mamanakis KD7GR

"WATTS NEWS" e-Magazine

NL Editor: John Anderson NJ6A

Executive Operations Manager

Val Campbell K7HCP

"OARC" web site

Webmaster: Val Campbell K7HCP

Postmaster: Val Campbell K7HCP

Membership Clerk: Val Campbell K7HCP

OARC VOLUNTEER APPOINTMENTS

10m Net Control - rotation

Assistant Photographer - Rick Hansen N7EGA

Badge Manager – Barbara Siddle KB7FWW

Club Call Sign (W7SU) Trustee – John Metcalf KE7VVT

Club Caterer - Ceva Cottrell W7CVA

Club Chef - Dave Mamanakis KD7GR

Club Elmer – Stan Sjol W0KP

Club Facility Manager—Dave Mamanakis KD7GR

Equipment Loan Program - Val Campbell K7HCP

Equipment Manager - Dave Mamanakis KD7GR

FD Log Manager - Jason Miles KE7IET

Ham & Eggs Breakfast – Dave DeHeer KJ7DAD

Ham & Eggs Net Control - Kenny Pronschinske KI7UFN

Ham & Eggs Net Control – Stan Sjol W0KP

Ham & Eggs Net Control – Bryce Draper KI7YZU

Ham & Eggs Net Control – Mark Berger KK7YAC

Photographer – Alan Buttars N7AFR

POTA - Gary Hudman KB7FMS

QSL Manager – Gale Sjol WD0CWK

Repeater Engineer – Mike Fullmer KZ7O

Repeater Engineer – Scott Willis KD7EKO

Social Media Manager - Dave Mamanakis KD7GR

YouTube Videos - Jason Miles KE7IET

VE Liaison Operations – Rick Morrison W7RIK

VE Assistant - Robert Smith KG7EIZ

VE IT – Jason Miles KE7IET

YL Net Control—Colleen Pike KJ7EAY

Zoom Manager – Justin Hall KB7LAK

OARC Notice

OARC WATTS NEWS
NEW
NEWS LETTER EDITOR

Welcome

John Anderson

NJ6A



OARC Message from our Leaders

Dave's Rag Chew

A Message from our President



By Dave Mamanakis KD7GR

Yep.

The rumors are true.

I have, once again, been elected President of the Ogden Amateur Radio Club. My occupation is "Software Development Engineer in Test" and my employer is Family Search. I was President most recently three years ago.

I know there are a lot of things that we want to do as a club. And, I am open to suggestions!

Somewhere I have a list of all the things people have said they wanted to do. Currently, I'm looking at the possibility of getting a group project of "building" something...

It wasn't possible over at the Fire Station (not after the PVC glue incident)... but we might be able to use the Utah Military Academy facility ...

And, I'd really like to see a CW class put together...

If you have ideas, feel free to send them to me: KD7GR@arrl.net

I look forward to hearing from you!

The only other thing I can tell you about, right now is that OgdenARC.org is getting a make-over. Stay tuned. We'll be posting more information on the progress via Facebook, and on the website itself.

I don't really have much more to say...

See you all at the Swap Meet next weekend, 9-12-2026, Bountiful City Park; 100 -162 W 400 N, Bountiful, UT 84010, 8am.

--Dave (KD7GR)

OARC Message from our Leaders

John's Comer - A Message from your WATTS NEWS Editor



To our readers:

While preparing the **OARC Remember When** section of our newsletter it came to mind how much this edition of WATTS NEWS could be improved by current pictures. Please take some photos at coming club activities and submit them to me in a digital format such as jpg via email in a timely way so that I can publish a few with each edition.

Rick Hansen N7EGA provides us with an article describing the development, use and issues of the Grove cell (battery) used in the early day of the telegraph. As I read, I was mystified by the terminology describing this Grove cell as providing a “brute force” signal to the telegraph wires of the day; when in fact the Grove cell provided a maximum of 1.9 volts! I guess this shows how our perspective has changed over the years. I hope you also enjoy this short article found as listed on the next page highlighted under **OARC Member & Guest Contributions at Q: Why did they use iron wires when copper was much better?**

Emilio Gonzalez WD4OXE shares his life experiences in earning his Extra license under the FCC administered licensing system that existed prior to the current Volunteer Examiner Coordinator (VEC) system. Back then, we were required to pass various levels of Morse code examinations for each license level and be examined by an FCC official and travel to the regional (possibly distant) FCC office. If any of our members or guests are willing to share your experiences at upgrading at an FCC office I would be inclined to print any such short stories.

This article is ~~is~~ found as listed below on this page ~~highlited~~ under [OARC Member & Guest Contributions](#) entitled Ham Radio Operators - Advanced License. I hope to see you at the Swap Meet this Saturday the 12th.

73,
John NJ6A
JohnAndersonCPA@gmail.com
(928) 531-6773

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By Dave Sanders K7RGY:

Ham Radio Operators - Advanced License

In ~~rhe~~ Early Days of Amateur Radio

By Rick Hansen N7EGA:

Q: Why did they use iron wires when copper was much better?

How did Europe and the UK decide on 50 Hz and 220/240V for their electrical systems,
and why didn't they switch to match the U.S. later on?

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OARC Next Club Event
SEPTEMBER 2026

NEXT OARC Meeting/Activity (September)

Joint (tri-county) Swap Meet

Date: 2nd Saturday, 12 September 2026 <<< Note date correction

Time: 8:00 am - 12:00 pm

Location: Bountiful City Park (100 West 400 North Bountiful) >>>

Activity: DCARC / OARC / UARC - Joint (tri-county) Swap Meet

OARC Prior Club Event
AUGUST 2026

Steak Fry, Officers Elections (Membership Renewal)

Location: Marriott Park 1045 S 1200 W, Ogden, UT 84404

Date: 3rd Saturday, 19 August 2026

Time: 5:00 pm

Note: Please bring side dish to share. Also, bring your own dinner-ware (emergency paper-ware provided).

- Steak Fry (Free steaks for all paid up members);
- Free hot dogs for the kids of all ages
- Club Officers Election; (Nominations welcomed)

GRAND DOOR PRIZE(S) TOTAL: \$500

NOTE: [Must be present to win. Paid-up members only]

- **NOTE: PLEASE JOIN/RENEW online prior to this meeting/activity**
- Membership Renewal (\$15); Associate Membership (\$10);

GUEST CONTRIBUTION

Submitted by Dave Sanders K7RGY



Ham Radio Operators - Advanced License Remember When?

Emilio Gonzalez

Wow! I really didn't expect such a huge response to my last post about the Advanced License. I'm so glad to see that many who hold that ticket—like myself—feel the exact same way. It really stands as a badge of honor, showing we achieved something that took real grit and hard work to earn.

That got me thinking about another topic that goes hand-in-hand with it: just how difficult and downright intimidating it was to get a ham radio license before the Volunteer Examiner Coordinator (VEC) system ever existed.

First off, let me say how wonderful it is to see how accessible licensing is today. With online study tools and friendly local VEC teams, the process is so much more welcoming, which is fantastic for bringing in new blood and keeping our hobby thriving.

Back in 1978, it was a completely different world. My journey started at the kitchen table six months prior, taking my Novice test administered by a friend of my dad's (N4QL, SK) who had mailed away for the exam.

But when it came time to upgrade, the cozy kitchen table was gone. You had to be thoroughly prepared—knowing everything you studied, having all those math formulas down cold, and copying Morse code under pressure without your brain completely freezing up. Upgrading for me, meant making the trip down to the FCC Field Office inside the federal building in downtown Miami.

All in all, I made five trips to the federal building. Two of those times, I struck out; they handed me a pink slip and told me to try again in 30 days. But three.

of those times I passed, eventually earning my Technician, General, and Advanced licenses.

Every single time, the second I walked into that office and handed over my yellow Form 610 application at the counter, a sickening wave of nerves hit me. When they finally called my name, I walked into a dead-silent room and sat at a cold desk under the stern, watchful gaze of an FCC examiner—you know, the guy with the pocket protector who looked like he hadn't smiled since the Eisenhower administration.

Slipping on those heavy, uncomfortable World War II-style headphones—the exact kind you see in old war movies—made my heart hammer against my ribs before the Morse code tape even started rolling. There were no public question pools to memorize or second chances back then. You either proved your technical skills and code copy right then and there to the FCC, or you walked out carrying defeat.

It was tough, and striking out hurt, but walking out of that federal building with your ticket finally earned was a feeling you never, ever forgot.

Who else survived the heavy headphones at the FCC field office? Which location was yours, and how many tries did it take you to walk out with your license?

73 de WD4OXT

GUEST CONTRIBUTION

Submitted by Dave Sanders K7RGY



In the early days of amateur radio

In the early days of amateur radio, the hobby was defined by pure experimentation, ingenuity, and hands-on building. Operators frequently constructed their own receivers, transmitters, and antennas from scratch, often relying on surplus military components, repurposed household items, and scrap materials to get on the air. Every component soldered and circuit wired represented a deep technical mastery of radio frequency engineering (of the day).

Today, rapid technological advancement has transformed the landscape of the hobby. Modern radio amateurs largely utilize commercially manufactured, highly sophisticated solid-state transceivers and advanced digital modes straight out of the box. While this evolution has made amateur radio vastly more accessible and reliable for global communication, it marks a significant shift from the golden age of homebrewing and home-built gear to an era of turnkey operation.

73 from PY6CJ - João Grisi



GUEST CONTRIBUTION

By Rick Hansen N7EGA



Q?: Why did they use iron wires when copper was much better

What were those Grove cells used for in early telegraphy, and why were they necessary?

To punch telegraph signals through hundreds of miles of leaky iron wire, operators needed brute-force electricity. The solution was the Grove cell: a jar of acid that filled offices with toxic gas.

Invented by Welsh scientist William Robert Grove in 1839, the Grove cell was a primary cell that generated its own current through a chemical reaction. It served as the driving force behind the early American telegraph system in the 1840s and 1850s. It consisted of a zinc cylinder sitting in dilute sulfuric acid, which surrounded a porous ceramic pot. Inside the ceramic pot was a piece of platinum suspended in concentrated nitric acid.

The network desperately needed this raw voltage. Early lines were made of bare iron strung on wooden poles, creating massive electrical resistance. Poor insulation meant the current constantly leaked away into the ground, especially in the rain. To push a readable signal from a telegraph key in New York to a receiver in Washington, D.C., operators required a battery that could sustain a heavy electrical output without "polarizing"—a process where hydrogen bubbles coat the electrodes and choke off the current.

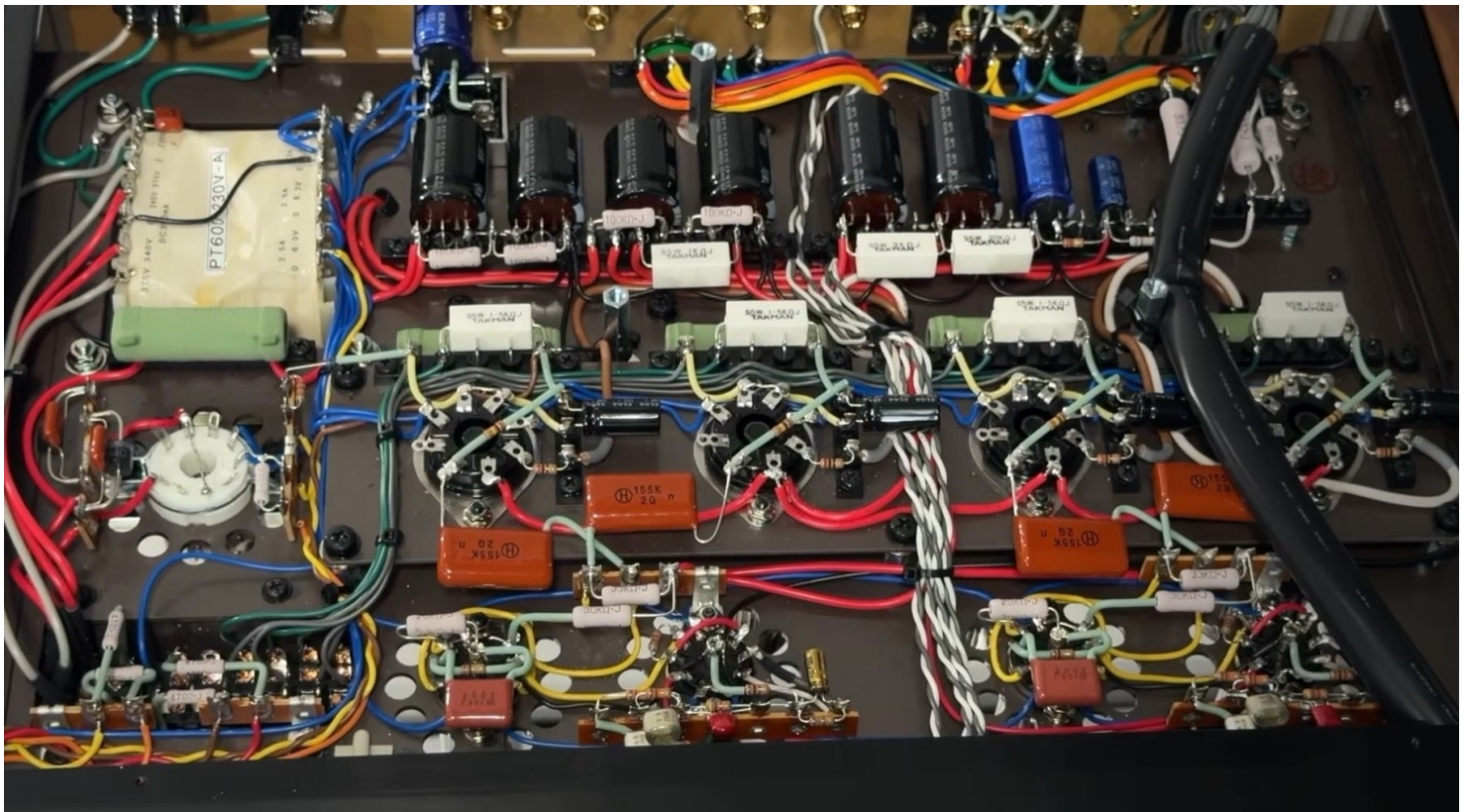
The Grove cell was perfectly suited for this era of communications. It output nearly 1.9 volts, significantly higher than the 1.1 volts produced by its main competitor, the Daniell cell. It could maintain this high current steadily, ensuring the signal reached the other end of the line.

But this electrical power came with terrible drawbacks. The cells were expensive to manufacture because they required solid platinum. Even worse, as the battery operated, the nitric acid reacted to release nitrogen dioxide gas. Telegraph offices powered by Grove cells were constantly filled with toxic, corrosive, reddish-brown fumes that irritated the lungs and ruined equipment. Operators hated the smell and the constant maintenance required to clean the zinc plates and replace the acids.

By the 1860s, telegraph technology matured. Companies began using lower-resistance copper wires and developed much more sensitive relays that could detect faint electrical signals. The need for the Grove cell's high voltage vanished, and the toxic batteries were swiftly replaced by the weaker, but entirely fume-free and reliable, Gravity cell.

(The End.)

Submitted Photo of format JPG file titled "remember when"



GUEST CONTRIBUTION

By Rick Hansen N7EGA



How did Europe and the UK decide on 50 Hz and 220/240V for their electrical systems, and why didn't they switch to match the U.S. later on?

Europe adopted 50 Hz simply because a German engineer preferred round numbers. When they later switched to 220V to save copper, America was already trapped by millions of early 110V appliances.

In the early 1880s, Thomas Edison developed the first commercially practical incandescent light bulb using a fragile carbon filament. He determined that 110 volts was the sweet spot: high enough to transmit direct current (DC) power efficiently over short distances, but low enough that the delicate carbon filaments wouldn't instantly snap. As a result, 110V became the global baseline for early electrical grids.

When alternating current (AC) arrived a decade later, it required a standardized frequency. In the United States, engineers working with George Westinghouse and Nikola Tesla experimented with various speeds before settling on 60 hertz (Hz). This frequency was fast enough to eliminate visible flickering in arc lamps, yet slow enough for early induction motors to run efficiently.

Across the Atlantic, the electrical landscape was dominated by the German company AEG (Allgemeine Elektrizitäts-Gesellschaft). AEG's chief engineer, Mikhail Dolivo-Dobrovolsky, pioneered the three-phase AC power transmission system that would define modern grids. When it came to frequency, Dolivo-

Dobrovolsky and AEG chose 50 Hz because 50 is a tidy multiple of ten, fitting neatly into the European metric mindset. Despite causing a slight flicker in early lighting, AEG's market dominance ensured that 50 Hz became the European standard.

The voltage divergence happened shortly after. By 1899, the Berliner Elektrizitäts-Werke (BEW) in Germany realized that 110V distribution was financially unsustainable as customer demand boomed. Transmitting more power at 110V required installing thicker, expensive copper cables. However, if they doubled the voltage to 220V, they could push four times as much power through their existing wires. With the timely invention of durable metal-filament light bulbs that could survive higher voltages, BEW made the switch to 220V. The copper savings were immense, and other European utilities quickly followed suit.

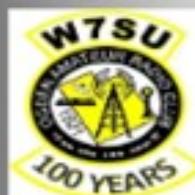
American engineers knew 220V distribution was superior. But by the time Europe began adopting 220V in the 1920s and 30s, the US was already much further along in mass consumer electrification. Millions of American homes were already wired for 110V, and millions of 110V appliances had been sold. The cost of replacing every light bulb, fan, and refrigerator in the country was economically impossible.

Instead, the US settled on a split-phase compromise that remains in place today. The American grid delivers 240V to a house, but splits it into two 120V legs at the breaker box. Standard wall outlets receive 120V to power legacy appliances safely, while dedicated circuits use the full 240V for heavy-duty appliances like ovens and clothes dryers.



Curt WR5J—Shows us his Magnetic Loop Antenna mounted on the ceiling of his shack.

OARC Remember When
5 Years Ago - September 2021



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SEPTEMBER 2021

Next Club Meeting/Activity/Events

Joint (tri-county) Swap Meet



Dave Mamanakis KD7GR
President



Justin Hall KB7LAK
Vice President



Colleen Pike K7EAT
Secretary



J. Siddle KG7CJN
Treasurer



Mike Wilde K7HEX
Program Director



Cody Hearrell K7OHU
Activity Director



Val Campbell K7HCP
Webmaster/NL Editor

CLUB NEWS

OARC Steak Fry

Closed bid silent Auction

OARC Silent Auction

Yaesu FT-890 (HF Transceiver)

Congratulations. The close bid auction winner was: **Evan Day W0GOP**



CLUB NEWS

Joint (tri-county) Swap Meet

DCARC / OARC / UARC

Date: 3rd Saturday 18 September 2021

Time: 8:00 am - 9:00 am (setup—no fees)

Time: 9:00 am - 11:30 am

Location: Bountiful City Park (100 West 400 North Bountiful)

>>> [MAP](#) <<<



OARC Remember When

10 Years Ago - September 2016



WATTS NEWS



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SEPTEMBER 2016

Next Club Meeting/Activity

Joint Swap Meet



Jason Miles KE7IET
President



Mike Taylor KE7NQH
Vice President



Ceia Cottrell KE7IEV
Secretary



Jerry Cottrell KG7IGW
Treasurer



Mike Neal K7MLN
Program Director



Dave Mamanskis KD7GR
Activity Director



Val Campbell K7HCP
Webmaster/NL Editor

PREVIOUS MEETINGS PICS

Photos by ... Ceva Cottrell KE7IEV



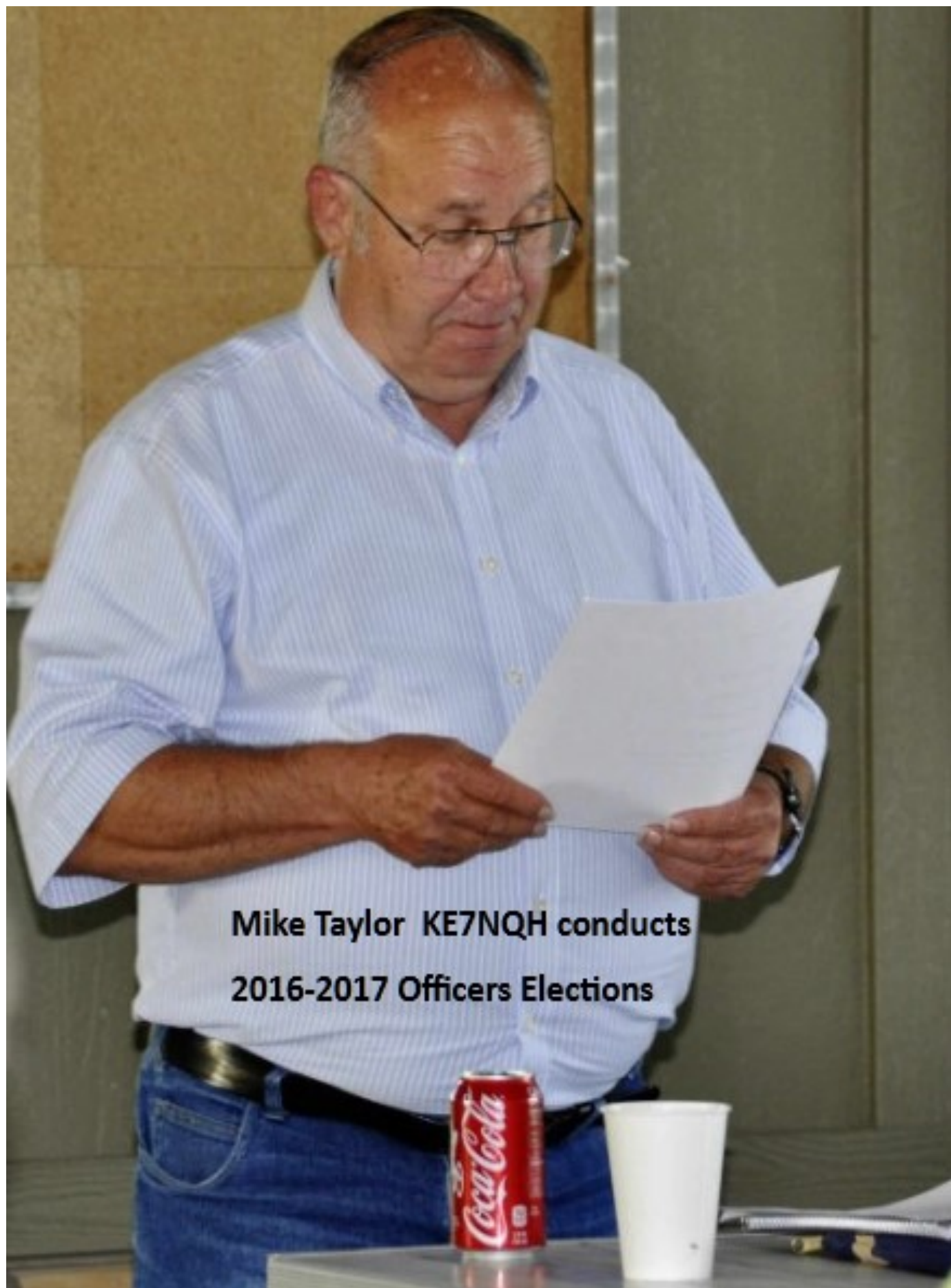
Our "YL's" prepare the kitchen for the Steak Fry feast!



**Out going OARC President Gil Leonard NG7IL
finds the perfect (free) steak for himself.**



Stan Sjol WOKP conducts the annual club auction



**Mike Taylor KE7NQH conducts
2016-2017 Officers Elections**

OARC Nets & Meets

HAM and EGGS Net

Tuesday Evenings at 6:30 PM Mountain Time

Mt Ogden 70 cm repeater 448.600 MHz (- offset, 123.0 PL Tone)

New, Intermediate & Old Timers. Elmering, Education, General Ham Discussion and Rag Chew.

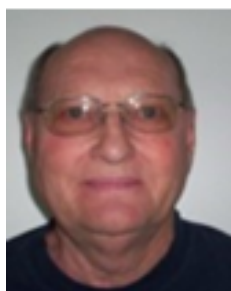
New hams encouraged to check in. Get connected, learn new things and ask questions.

Net Control: Stan Sjol (W0KP), stansjol@xmission.com

Kenny Pronschinske (KI7UFN), kennypron@hotmail.com

Bryce Draper (KI7YZU), brycejill@outlook.com

Mark Berger (KK7YAC), mark@bandfec.com



Stan Sjol
W0KP



Kenny Pronschinske
KI7UFN



Bryce Draper
KI7YZU



Mark Berger
KK7YAC

10 Meter Net

Thursday Evenings at (18:30) 6:30 PM MT

10 Meters HF- 28.375 MHz SSB (USB)

Purpose is to promote activity on the 10 meter band (especially during low sun-spot activity).

To give technician class operators an opportunity to operate phone, and to provide a venue for conversation and experimentation with antenna and ground wave propagation.

NOTICE: “Work toward getting your “10 on 10 Award”

“Work toward getting your “10 meter WAS Award”

Questions and Net Control: by rotation

Net control is passed around to regular check ins.

“YL” Ladies Only Net

Monday Evening (19:00) 7:00 PM MT

70 cm Repeater - 448.600 MHz (neg offset, PL=123)

Purpose is to promote the “YL” lady operators an opportunity to mingle together (without men operators bothering them—Hi Hi).



Net Control: Colleen Pike, KJ7EAY

Ham & Eggs Breakfast

Each Wednesday, at a very early 8:00 am, some of the club members meet for an informal breakfast get-to-gather. Everyone is welcome.

Now at:

The Rusted Spoon-Ogden (previously The Stagecoach)

1310 Wall Ave, Ogden, UT

NOTE: See you there ... if you can get up that early.



73, Dave KJ7DAD

73 de W7SU

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w7su@arrl.net

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