



Official Publication of the
West Allis Radio Amateur Club

Hamtrix

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Volume 64, Issue 8 August, 2017

AUGUST CLUB HAPPENINGS

Club Meeting

St. Peter's Episcopal Church,
7929 W. Lincoln Avenue, West Allis
August 8, 2017 6:30 PM

Don Solberg K9AQ

Talk on his Home-brewed solid state
amplifier
and his radio remote control setup

**Johnny V's Classic Café, 1650 S. 84th
St. at 5:00PM.**



NUT NET

3.985mhz

Monday-Saturday

8:15am CT

Milwaukee-Florida Net

Every Day on 14.290 Mhz

7:00AM - 9:15AM ET

6:00AM - 8:15AM CT

Sunshine Committee

If you know of a member who
could use a bit of cheer or
support,

Barb Garnier (KD9HPS) is
now the Sunshine Committee
Chair.

You can get hold of her at
414-529-3536 or
barbsewsblue@gmail.com.

Save The Date

W.A.R.A.C. Awards Dinner will be held
at New Berlin Hills on October 29th at
5:00 PM.

Speaker

Lynn Olenik from the Humane Animal Welfare
Society (HAWS) of Waukesha.

WARAC 2-meter net

Every Wednesday at 8pm

SEWFARS K9ABC Repeater 146.820 standard (-)offset
127.3 Hz CTCSS

if repeater down try 146.55 simplex

Club jackets and hats!

Go to club Web site and click on
The GOLD MEDAL IDEAS block

For more info or click here



The President's Shack August 2017

I hope your summer's not going as fast as mine. Wow, here it is August already. I must be having fun.

The program topic for our August meeting will have Don Solberg, K9AQ, telling about his very unique station. There are two parts to what Don will talk about - his **home-brew solid state amplifier** and his **remote control setup**, which is also largely home brew. His station is located up north in Townsend, WI (Oconto county), and he routinely operates it from his home in Dousman as well as from other places that his travels take him. This promises to be a very interesting presentation. Be there!

In **September** we'll talk about **troubleshooting and repair** – mainly for radios, but repair of anything is within limits. We need your participation. Have you had problems that were really hard to figure out? What are your repair experiences? Who has done a good job for you? Have you had situations where the outcome wasn't to your liking? What repairs have you been able to make yourself?

As Field Day 2017 fades into more distant memory, I want to again express thanks to Chuck, W9WLX, for a great job as Field Day chairman and for last month's FD wrap-up. Also, thanks again to all who participated! Check out the pictures on our web site (<http://www.warac.org/fd/2017/pix.htm>) and watch out for guys in blue shirts wielding sledge hammers.

Don't forget that Sunday, **October 29** is the date of our **Annual Awards Dinner**. This year's committee, Erwin von der Ehe, Steve Dryja and

Mike Johnson, is putting the event together. We'll be at a new location, New Berlin Hills Country Club, 13175WGraham St in New Berlin. Be sure to fill out and turn in your sign-up sheet

Saturday, July 8 was the **South Milwaukee Swapfest** and our sales of donated items went well. Since we didn't have many bigger items, the dollars were down, but a lot of stuff was sold. This was the first swapfest for our new trailer and it worked fine, even though the shelves aren't done yet. A big thank you to Steve, NO9B, for managing our sales effort and for his work on the trailer shelving. Thanks also to Phil, W9NAW, and others who helped.

As always, please bring your stories, on-air activities, travel experiences, etc. for the open discussion portion of our meeting. And don't forget our usual before-meeting dinner at **Johnny V's Classic Café, 1650 S. 84th St.** at 5:00PM.

See you at the meeting! **Bring a story.** Bring a friend!
Tom, K9BTQ

From the Editor

August's here already? Wow where did the summer go? Some of it went to taking care of my wife with her perforated ulcer. We finally got some good news today. The hole has closed up with the help from the clip placed two weeks ago. We both thank everyone for your prayers and concern. You sure made the adventure easier.

Mike WO9B contributed a couple of interesting articles on CW. One about it being used on a damaged submarine S-5 that had been sunk during sea trials. The story has a sad end because the sailors that made it to the bottom alive were not able to be rescued. I'm sure that that accident made the submarines much safer for the submariners that came after. We had more options to get out and survive something like that.

When the USS Thresher went down many safety changes were added to the boats that I'm sure saved lives.

editorial pg 11

WARAC General Meeting Minutes

July 11, 2017

Introduction

The meeting was called to order at 19:02 by President, Tom Macon (K9BTQ). Overall meeting attendance was 17 members, plus 0 visitors.

Tonight's Program:

- Field Day 2017 Results – Chuck Dellis (W9WLX)
- Ham Jeopardy – Mike Johnson (WO9B) – Nice job!! it was a fun time.
- Members can join the Solar Eclipse QSO Party on 2017-08-21. For details, go to <http://hamsci.org/seqp>
- Club trailer shelves are mostly installed – Steve Dryja (NO9B)
- Erwin von der Ehe (WI9EV) & Mike Johnson (WO9B) & Steve Dryja (NO9B) gave status of the Awards Dinner, scheduled for August 29, 2017.
- Erwin von der Ehe (WI9EV) gave a report from the Waukesha Expo Focus Group meeting of June 14th.
- Steve Dryja (NO9B) gave a report of W.A.R.A.C. sales at the Southeast Wisconsin Swapfest

Future Programs

August '17: Home Brew Remote and Amplifier

September '18:

Business

- June meeting minutes were voted on and approved.
- Scholarship recipient is Erik J. Maplethorpe (KC9PDU) of Round Lake, IL. Howard Smith (WA9AXQ) is trying to get additional contact information.

The meeting was adjourned at 20:55.

Respectfully submitted,
Erwin von der Ehe (WI9EV)
Secretary, W.A.R.A.C.
2017-07-11

W.A.R.A.C. Board Meeting

July 25, 2017

Howard Smith (WA9AXQ) called the meeting to order at 19:13.

Present: Tom Macon (K9BTQ), Howard Smith (WA9AXQ), Erwin von der Ehe (WI9EV), Steve Dryja (NO9B), Frank Humpal (KA9FZR), Dave Garnier (WB9OWN), Mike Johnson (WO9B).

- Howard Smith (WA9AXQ) presented the monthly Treasurer's report and the Club equipment and liability insurance status.
- W.A.R.A.C. Facebook page is live. A review is deferred to next month.
- A discussion was had regarding having a December meeting as a holiday party.
- Steve Dryja (NO9B) gave the status of the Club trailer.
- Erwin von der Ehe (WI9EV) gave a 2018 Swapfest update.
- HRO 2017 Superfest in September – we will approach HRO regarding participation.

Programs

August, 2017: Remote Station Operation

September, 2017: Repair Experiences

October, 2017: Elections

Future Program Ideas

Logger 32 logging software

SO2R Contest operating

WE Energies or Time-Warner Cable noise tracking

Feedlines

VHF/UHF Digital Communications

Ham trivia night

Story-telling night

Careers?

Ham Radio Outlet – New radio products

DMR Radios

Other Items

- Steve Dryja (NO9B) will investigate options for a 2-person ladder for use at Field Day.
- Tom Macon (K9BTQ) will work on a Software One order.
- Sunshine committee – Barb Garnier (KD9HPS) is getting up to speed.
- Club video projector replacement and disposal of existing projector was discussed. Dave Garnier (WB9OWN) will investigate and offer (3) options next meeting.

Meeting was adjourned at 20:45.

Respectfully submitted,

Erwin von der Ehe (WI9EV)

Secretary, W.A.R.A.C.

2017-07-25

Morse Code, with Urgency by John Harper, AE5X



US submarine S-4 on 26 December 1919

The following story was mentioned briefly by one of my instructors at Submarine School in Groton CT back in 1984. Thanks to the internet ([and one good book](#)), many more details are now easily available - here is a very condensed version of of a tragic story in US submarine history.

There are many stories in the history of Sam Morse's code regarding disasters, rescues and failed rescues. To the best of my knowledge, there are five documented instances where

Morse was used by crewmembers of stricken submarines to communicate with their would-be rescuers.

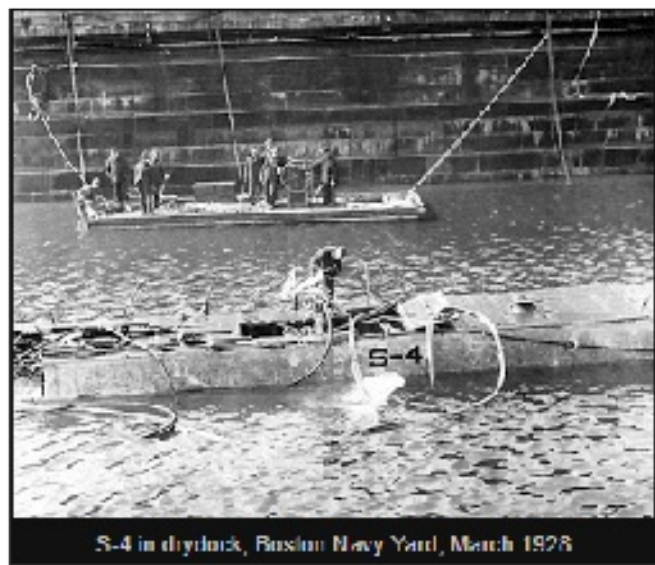
But the definition of what constitutes Morse Code varies with the integrity (or sense of drama) of the journalist reporting it. The phrase "Morse Code" has been used when it would have been more accurate to say "they banged like hell on the hull."

But on 17 December 1927 the Morse Code was used, perhaps more extensively than on any similar occasion since. And by occasion, I mean submarine disaster.

On that date, the well-travelled submarine S-4 was conducting sea trials off the coast of Massachusetts. The submarine was eight yearsold at the time and had set the US distance record for submarines by sailing from Groton CT to the Philippines via the Panama Canal (which had opened 5 years prior). After serving there for several years,

the submarine was eight yearsold at the time and had set the US distance record for submarines by sailing from Groton CT to the Philippines via the Panama Canal (which had opened 5 years prior). After serving there for several years,

It was after this overhaul that the sea trials were being conducted. These consist of steep ascents, steep descents, snap rolls and deep dives to check for leaks. After surfacing from a dive, S-4 collided with a Coast Guard destroyer (USCGC Paulding), ripping a 2-foot gash in the forward part of the submarine and sending it to the bottom 110 feet below.



S-4 in drydock, Boston Navy Yard, March 1928

Ice cold seawater would have flooded the batteries almost immediately as they are located at the lowest point of any submarine. The resulting toxic chlorine gas then began to occupy any space not already flooded with water. The surviving men onboard retreated behind watertight hatches to the aft part of the sub which by now would have been in total darkness.



Secretary of Navy Curtie Willbur inspects S 4

At this point, it was about 4pm - 34 of the 40-man crew had made it aft to the engine room with the remaining six unaccounted for who had been in the torpedo room. The flooding of the forward compartments had ceased and the sub would have been eerily quiet.

At 11am the next morning a rescue ship was on the scene and divers were making preparations to attach an air line to the submarine. Diver Thomas Eadie tapped on the hull along the length of the sub. He received 6 taps in return from the

torpedo room and none as he worked his way aft - the 34 men in the engine room had not survived.

Roughly 24 hours after S-4 sank, another submarine (S-8) arrived and used its [Fessenden oscillator](#) to ping questions to the survivors on S-4 in Morse Code:

"Is there any [chlorine] gas down there?"

"No, but the air is very bad. How long will you be?" came the reply, tapped in Morse on the hull.

"How many are you?"

"Six. Please hurry."

That evening a diver took a high pressure air hose down to S-4 with the idea being to blow the water out of the ballast tanks causing the sub to surface. But the weather had deteriorated and the seas were rough. The diver's own air line became fouled. He was in turn rescued by another diver and barely survived.

Later that evening, the stranded men tapped:

"Hurry. Is there any hope?"

"There is hope. Everything possible is being done" came the reply.

Later still, S-8 telegraphed a message relayed by the Navy Department:

"Lt. Fitch: your wife and mother constantly praying for you".

"R" was the reply. Message received.

The captain of the rescue ship ([Frank Brumby](#)) then ordered the ship to return to Boston to wait out the storm which lasted several days. It returned to the scene on the 21st of December and a diver was able to attach an airline to the sub. No answers were received in response to taps on the hull and an extracted sample of air from the submarine taken via the airline showed CO2 levels at 7% - too high to support life.

In March 1928, three months after the sinking, S-4 was brought to the surface. Investigators found that "the walls were battered and scarred by many heavy blows". In the compartment containing the last six survivors, personnel found Lt. Fitch "lying under a workbench. On the hull above him were two black spots where the "interior white paint had been chipped away from repeated blows with a wrench". The wrench was found nearby with "two of its sides flattened from prolonged use".

S-4 was reconditioned, recommissioned and renamed SS-109 and became a test platform for submarine rescue experiments. On 15 May 1936 S-4 was scuttled in deep water off Pearl Harbor.



Written by Torpedoman Roger Short and found on his body: "In case of my death Please send entire contents of box to my mother Mrs Short 804 Spring St. Booneville, Mississippi."

Originally posted at [AE5X.blogspot.com](#). Reprinted with permission of John Harper, AE5X

Ham Radio is not Dead Yet by Danielle .Roof

Meet Joel Wilhite, or KD6W as he's known in the American Radio Relay League. Yes, Joel is a competitive ham radio enthusiast.

Joel admits to using a "store bought" shortwave radio back in the early 80s when he first started this hobby, but his focus ever since has been one of innovation. It started with a few "upgrades" but increasingly Joel has focused on designing his competitive ham radios from the ground up. From tubes to transistors, this is clearly not your father's ham radio.



The American Radio Relay League dates back to 1914 when an inventor, [Hiram Percy Maxim](#), best known for his firearm silencer, was anything but silent about his ham radio hobby. Frustrated by the inability to communicate directly with other hams, he had the idea of creating a relay system to extend the range of radio communication.

Fast forward to modern times and Joel designs and redesigns his radios as one of the top competitors the ARRL's 10GHz and Up contest which they hold twice a year. A 10 year veteran of the competition his best result is a second place finish.

The object of the 10GHz & Up contest (<http://www.arrl.org/10-ghz-up>) is to communicate with as many other radio broadcasters from as many different locations as possible. Joel's modifications including "locking in the oscillator so that two devices trying to communicate do not drift into a different frequency. He used a Jameco [DC to DC converter](#) to accomplish this crucial task, as well as other existing parts. In order to lock the oscillators, he uses phase lock loops. During the contest, the competitors try to get to a broadcast location, get on the air as fast as possible,



communicate with others, and repeat this in as many locations as possible. Since the contest requires almost constant movement, a crucial part of the design process is ensuring that the operator has the ability to break down and reassemble the device. This requires a certain amount of durability and flexibility in the design.

He will often use a pre-made module but fires up his CAD software for the design process evaluating fit and function. This ownership of the design is both practical and a source of pride for Joel – he enjoys the knowledge that he is the greatest expert when it comes to his own devices.

According to Joel, the innovations in this industry continue to come, and he's regularly researching what capabilities he might be able to incorporate into his designs. He always asks himself, "Can I make this in a way that is better, faster, or cheaper?"

Joel's day job in television is nothing like his weekends as KD6W, ARRL competitor. He has been pursuing his radio hobby as much as possible since he first got licensed in 1982 and is a part of a very active hobbyist community. They collaborate on a wide variety of projects and share articles, new ideas, and more. While he's a competitor, it's clear that collaboration can be just as much fun.

Together, Joel and his fellow radio enthusiasts work to continue learning, developing, and practicing their skills. According to Joel, "getting a license is easy" – the fun truly starts when people are able to access their own creativity and think of new, innovative projects. While many of us may think of amateur radio as a thing of the past, Joel assures me that it is "not the old tube ham radio stuff anymore." The field, like so many others, continues to evolve and grow with the advancement of technology and our access to it.

To learn more about the ARRL, visit <http://www.arrl.org/> and to contact Joel directly email [\[email protected\]](#).

Danielle Roof is a senior at Tulane University originally from San Carlos, California. She is studying Political Economy and Education, and hopes to go into teaching. Her favorite things to do when she's not studying are dance, yoga, and traveling to new places.

FOR SALE

The following items were donated from Gene's K9WFE (SK) estate and are available at this time. Contact Phil, W9NAW, for additional information/questions.

Yaesu FT-920, HF + 6M transceiver with new hand mike and power cable, excellent condition. Unit was just serviced by Burghardt Radio Repair. Cannot transmit on AM—replacement processor chip is no longer available. Asking \$800 or make an offer.

Yaesu FT-890, HF transceiver with new hand mike and power cable, good condition. Unit was just serviced by Burghardt Radio Repair. Asking \$400 or make an offer.

Cushcraft A3S, tri-band beam antenna, good condition, with manual. Priced at \$100.

Rohn 25G tower, 40 feet, with rotator mounting plate, good condition. Available for only \$125.

PLG, W9NAW

2 Aug 2017

For Sale

Ken K9KS is cleaning house and has multiple mobile ham antennas. If you have any need to help him clean out, contact him at his email ksecora@hotmail.com for details



CW: Learned it, now what??

By Mike Johnson, WO9B

At the last WARAC Board Meeting we had a sidebar discussion about CW. For a legacy mode, it does seem to engender a strange brew of emotions. I think for us “code required” hams there is a small sense of guilt as we, at one time or another, were code capable. The real Old Timers gutted it out at the FCC with the verbatim 1 minute copy tests. But most of us took some kind of copy/quiz deal. I did both and I have to say the later is much preferred. Literally, the only way the FCC version could be worse is if it were administered by nuns. Just kidding.

Back in my old time novice days it just seemed easier to get up to speed. 5 WPM QSO's littered the novice bands. I can't tell you how many QSO's I bailed out of cause I couldn't copy the other station. I could hear them just fine, but understanding was out of the questions. Spin the dial and out you go. No one ever chased me down and gave me any kind of feed back. But I don't think it is so easy these days. The reality is slow speed QSO's mean 13 WPM these

days. Geez, it took me a year in the Novice bands to get my speed up to 13. Man, that was the holy grail for me.

So what do you do to get your CW skills up to spec? Thought I'd pass along some ideas.

<http://www.cwops.org/> CW Operator's Club. Check out the web page. These are the folks that administer the completely free CW Academy. They run the weekly CWops Test (CWT). These guys are code oriented. Take one of their courses, you will definitely improve.

<http://www.skccgroup.com/> Straight Key Century Club. I am always running into someone calling CQ SKCC on the bands. These folks are friendly and have all sorts of room in their tent for beginning CW ops. Check them out, they may be a launching pad for you.

QRP Contests: Pick a QRP contest and jump in. These usually run at 5 W's and are typically CW oriented. The code speeds are slow and the exchanges are very friendly. Oh, and they are really operating events, not so much contests. I just ran the FOBB (Flight of the Bumble Bee) contest this past weekend. Did it from a park using 4 watts. Made 12 Q's and had a great time over the course of an hour or so. QRP contests happen all the time. Here is a pretty good list:

http://www.hornucopia.com/contestcal/contestcal_qrp.html But there are more...many, many more.

Set a goal: Put some markers down. I decided to go after my Worked All States CW only. How about DXCC? Maybe go for one CW contact per day.

<https://www.reddit.com/r/amateurradio/%20> Get on reddit and hook into the Amateur Radio subreddit. They have a weekly Novice CW net. These are a little different in that you arrange a QSO on the internet. I have done this and you can not believe the level of accomplishment. It's very different.

NTS: This is definitely old school, but every day at 6:00 PM on 3555 kHz is the Slow Speed Traffic Net. Check in. They are all about QRS. You don't need to have any traffic or need to volunteer to pick anything up. Just check in and copy along. It is really easy. BTW, all you need to send is: "de WO9B GE QRU BK". You can do that.

That's really all there is to getting started. Once you start making Q's you'll figure out where to go from there.

editorial

Mike's other article is about learning CW in today's Ham radio environment. There are many good ideas in it. It is much different than when we had to find room in the novice bands and you could listen to professional CW on Short wave.

So enjoy what's left of the summer.

Frank KA9FZR

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***See our Web Page or contact us
for more information on***

- WARAC Memorial Scholarships
- Wisconsin QSO Party
- Midwinter Swapfest
- Worked all Wisconsin Counties Award
- Amateur Radio Classes

WARAC holds meetings on the second Tuesday of each month and board meetings on the fourth Tuesday of each month. Meetings are held at 7:00 PM at:

**St Peter's Episcopal Church
7929 W. Lincoln Avenue
West Allis, WI**

Entry is off the alley at the rear of the church.
A wheel chair ramp and chair-lift are available.