



Official Publication of the
West Allis Radio Amateur Club

Hamtrix

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Volume 70, Issue 2 February, 2021

FEBRUARY CLUB HAPPENINGS

Virtual Club Meeting February 9, 2021 7pm

Using Zoom

Program

First Impressions

Icon IC-705 Chuck Dellis, W9WLX

Yaesu DX10 Howard Smith WA9AXQ

Yaesu FT-891 Frank Humpal KA9FZR

Zoom Meeting

Meeting ID: **647 484 5588** - Password: **warac**

<https://zoom.us/j/6474845588?pwd=WjRRQ3E5bHVlbDY5aGNhazNwZlh0dz09>

Zoom phone in info on page 15



NUT NET

3.985mhz

Monday-Saturday

8:15am CT

NUT NET

Breakfast

8:30am fourth

Tuesday

of the month

Milwaukee-Florida Net

Every Day on 14.290 Mhz

7:00AM - 9:15AM ET

6:00AM - 8:00AM 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.

Contact her: 414-529-3536 or barbsewsblue@gmail.com.



Wisconsin QSO Party Sunday, March 14th

<http://www.warac.org/wqp/wqp.htm>

WARAC 2-meter net

Every Wednesday at 8pm

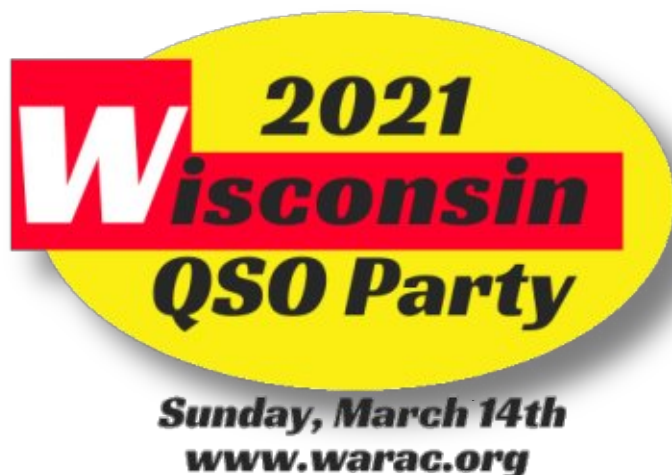
SEWFARS W9TJK Repeater 146.820

standard (-) offset 127.3 Hz CTCSS

if repeater down try 146.55 simplex

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The President's Shack

Winter is here it may be late but is still at full strength. Such is Wisconsin weather!

With the unknown of the Covid-19 virus, we have decided to cancel the 2021 Field Day and the 2022 Swapfest.

My morning nut net breakfast shack HI HI



I have mixed feelings on the Swapfest, especially. Field Day I am not usually able to spend much time with. I think we need to look into how we can make it a small, less labor intense activity. Our membership is getting smaller and older. I don't want to put anyone in a place where they could get hurt.

The club has done many so called park activations over the last couple years. Can we come up with something like that for a field day? I'm sure there are other thoughts on this. I will bring it up at the meeting.

Something to kick around: What would it take for the club to set up an internet accessible HF station for all club members to get on the air. In the future we may not be able to set up a station where we are living, due to antenna restrictions, RFI noise etc. It would be sort of like a club station you don't have to go to. I have no idea what would be involved for the club and no decision needs to be made at this time. I'm just looking for thoughts.

Not much else is going on at my shack. I keep tabs with the Nut Net most mornings, work on CW on Monday night, and have our 2 meter net Wednesday night.

It sounds like cold weather is on the way and next month we are having our Wisconsin QSO party. If you haven't done it before, jump in, even if you stay for the whole party it isn't that long! I have done it with QRP and always hear how willing people are to try to dig you out of the noise. They aren't expecting contest experts, so have fun! It's called a party for a reason.

73

Frank KA9FZR • — • —••

From the Editor

No editorial due to being occupied by the President's Shack

WARAC Club Meeting Minuets

January 12, 2021

Due to the nature of the COVID-19 crisis and Governor Tony Evers "[Emergency Order #12 Safer At Home Order](#)", Chuck W9WLX hosted the Zoom Meeting.

The club meeting was called to order 7:04 pm by Frank KA9FZR.

Approximately 15 virtual club members were identified by the Secretary Dave WB9OWN. There were no visitors.

Club Presentation: Frank KA9FZR began the meeting by asking the membership "What are you doing these days?"

Club Presentation: 630 Meters Band: Is it practical for Amateur use? By Chuck W9WLX. The YouTube video presentation was by Dave Johnson WD8DAS

<https://www.youtube.com/watch?v=XmrJe577Nes> Dave's presentation is quite good. I recommend watching it again, and others on 630 meter.

David WB9OWN gave a short talk on his recent experiences on 630 meters.

Generally speaking the folks that operate 630 meters are hearty bunch of hams who have done it all, CW, DX'ers, EME, Microwave 10 Ghz and above operators. It's a venerable list of who's who. These operators arrange their day to working grayline propagation, waking early and going to bed early. A good number work CW. Working each other twice a day IS the 630 meter operational pattern... There's also a mid week (Wednesday) propagation net where QSO's extend 400 to 900 miles depending on your station. Wisconsin's big gun is Lloyd N9LB. Interesting in LF & MF?

Read the daily propagation 630/2200 meter reports.

<http://njdtechnologies.net/category/630-meter-daily-reports/>

As to Chuck's original question, "Is 630 Meters Band practical for Amateur use?" I would answer it with the following. 1) If you like 160 meters & propagation you will feel at home. 2) If you like building antennas, amplifiers or transverters you won't be disappointed, this is easy LF work. 3) This is an experimenter's band, no contests but QSL cards are desired! There's some CW, SSB and FT8 activity.

Frank KA9FZR talked extensively about his FAA days particularly about the Glide Slope beacons at runway ends. Glide scope and Non-Directional Beacons (NDB) dove-tailed nicely with the 630meters discussion.

Howard WA9AXQ talked more on his morse-code trainer based upon STM's "Blue Pill" a 32 bit ARM. Howard answered box assembly questions Dave WB9OWN had given him about 3D printer box pieces. Howard bought the newly introduced Yaesu FTDX10 which sparked some buzz and interesting questions.

Frank KA9FZR and Mike WO9B have been practicing CW between themselves at night and have announced "Come join us" on Monday Night at 8pm, meeting first on 147.135 repeater.

December minutes were approved.

December attendance error noted by Mike Johnson.

Where are the donuts and coffee Phil? (virtual meeting joke.)

General meeting was adjourned about 7:57 pm.

Unofficial meeting ended about 9:52 pm.

Respectfully submitted,

David Garnier WB9OWN

Secretary WARAC, February 1, 2021

XX

NOTE: It has come to the attention of the Secretary that the 2021 WARAC Election results have not been reported in Hamtrix.

The following positions have been filled by the following people.

President - 1 Year Term: Frank Humpal

Vice President - 1 Year Term: Steve Dryja

Treasurer - 1 Year Term: Bill Reed

Secretary - 1 Year Term: Dave Garnier

At Large Board Member - 2 Year Term: Phil Tollefson

At Large Board Member - 1 Year remaining: Tom Macon

Past President - Mike Johnson • —• —••

West Allis Radio Amateur Club – Sign In Sheet

1/12/21 Zoom Logon Listing

1 Frank Humpal KA9FZR

2 Bill Dargis KD9BJZ

3 Chuck Dellis W9WLX

4 Steve Dryja NO9B

5 David Garnier WB9OWN

6 Mike Falk AA9RK

7 Phil Gural W9NAW

8 Al Hovey WA9BZW

9 Mike Johnson WO9B

10 Tom Macon K9BTQ

11 Bill Reed N9KPH

12 Paul Sperbeck W9PCS

13 Howard Smith WA9AXQ

14 Phil Tollefson WA9AQL

15 Ewin Von de Ehe WI9EV • —• —••

DXing and Contesting - February 2021

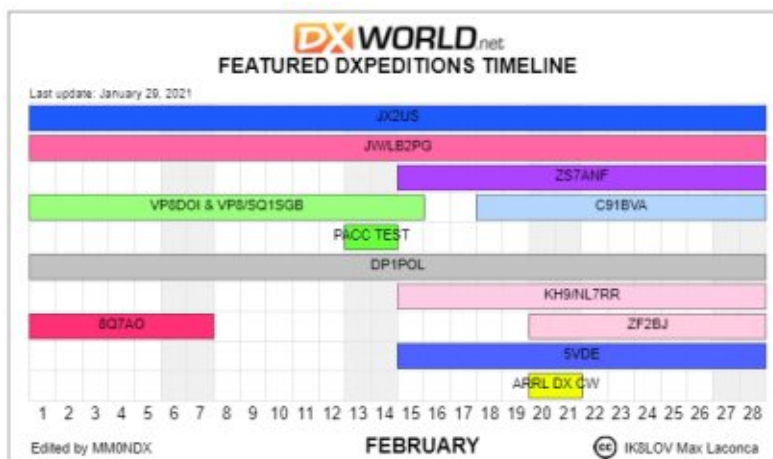
DX UPDATE:

JX2US: Jan Mayen Island continues thru Mar 21

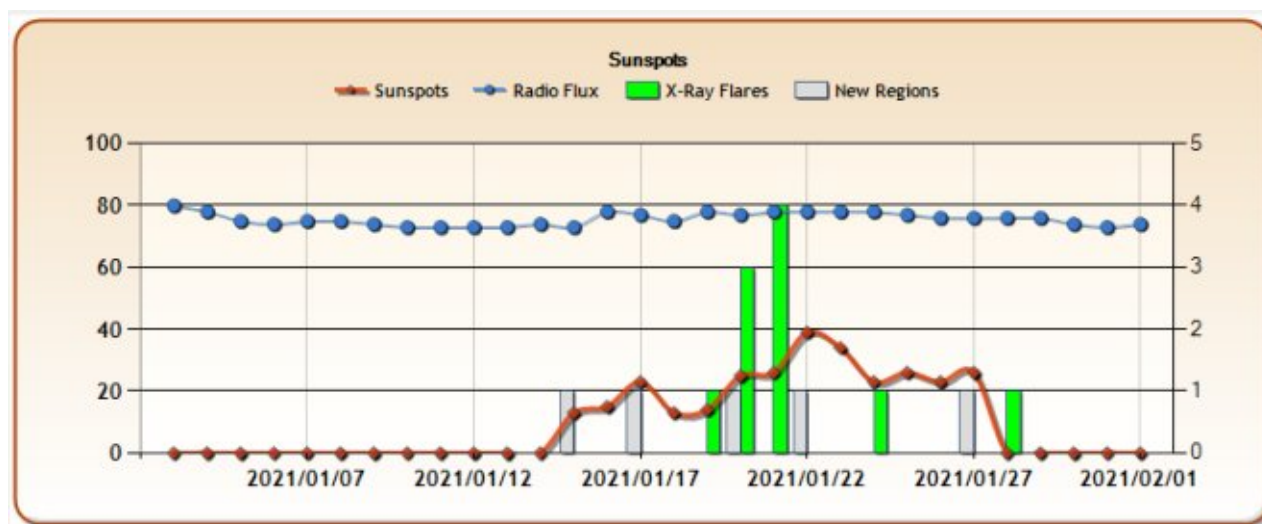
DP1POL, VP8DOI, ZF7ANFL: Antarctica, active

JW/LB2PG - Svalbard, Eagle Island, active until June 1st

African Countries: Mozambique, Togo active



Solar: Cycle 25 is remaining stubbornly passive. Predictions from last month remain in place for March: SFI @ 80ish, Sunspots @ 20ish, A and K unexciting. What's that saying about March? In like a lion... well hopefully February ramps up to deliver the March lion.



CONTEST UPDATE:

With January in the rear view mirror, time to get on board the Feb Contest Train. State QSO Party Competition begins with a bang this month: MN, VT, BC all on Feb 6th followed by NC & SC on Feb 28th/Mar 1st. But that's not all. The bigger contests are breaking in Feb as well. Do Not Miss the Dutch PACC contest on Feb 13th. Everybody wins a ribbon. Even last year when I submitted a check log, I still got a ribbon. Feb is a very good month for the contesting minded.

- MN, VT, BC QSO Parties: Feb 6th
- EurAsia HF Championship: Feb 6-7th
- Dutch PACC Contest: Feb 13-14th
- HamCation QSO Party: Cuz you can't go...Feb13-14th
- ARRL DX Contest, CW: Feb 20-21st
- CQ 160 Meter, SSB: Feb 26-28
- SC / NC QSO Party: Feb 28 - Mar 1 • —• —••

WARAC Quarterly Board Meeting, January 21, 2021

Due to the nature of the COVID-19 crisis and Governor Tony Evers “Emergency Order #12 Safer At Home Order”, Chuck W9WLX hosted the Zoom Meeting.

The club meeting was called to order 7:04 pm by Frank KA9FZR.

Officers Board Members Present

Frank Humpal KA9FZR, Bill Reed N9KPH, Phil Tollefson WA9AQL, Dave Garnier WB9OWN, Mike Johnson WO9B, Steve Dryja NO9B, Tom Macon K9BTQ, Erwin WI9EV, Howard Smith WA9AXQ. One visitor was present Paul W9PCS.

Meeting began @ 7:02 PM

Meeting Agenda

- 1.) Treasurer’s Report - Bill, N9KPH. Financial Year To Date and Quarterly reports were submitted by email, summary as follows.
 - Erwin WI9EV volunteered to examine the clubs financial records, audit will be far easier this year because these has been far fewer expense transactions.
 - Club’s 2020 Swapfest deposit check of \$400 hasn’t been cashed, this expense has been voided.
 - One CD is up for renewal (by the end of this month;) the new interest rate is pathetically low.
 - Equipment sale funds of \$1235 need to be moved either into the CD or left into the regular savings fund.

- 2.) FD 2021 Chairman Report - Chuck W9WLX announced he is stepping down from his leadership position due to the lack of participation. Therefore the club sponsored FD 2021 event is in jeopardy. Further FD discussion was muted from this point.

- 3.) Wisconsin QSO Party Report - Chuck W9WLX, planning is proceeding fine. Money has been budgeted for plaques.

- 4.) WARAC Swapfest 2022 Report - Mike WO9B, announced he’s stepping down from his Swapfest leadership position. A lively discussion ensued from this point...
 - What year did WARAC winter Swapfest start? Tom K9BTQ indicated 1973.
 - Pawn off our Swapfest to another club?
 - Pro’s and Con’s of helping another club gets us what?
 - Swapfest Vendors are time slotted to these weekend shows, let the date go and you lose the vendors.
 - “Who here wants to step up and take Mike’s job?” “Do we stop or continued the Swapfest?” “We are all getting too old to do this, I say we stop it.” “Where’s the rest of club’s membership on this?” “2021 club membership renewal is down.” “Are we loosing critical mass to pull the Swapfest off?” The secretary voiced the opinion “This is the wrong time to be making this monumental decision, lets wait a couple months until we get the vaccine and things brighter up.”
 - “Lets vote on this, What are we voting on?”
 - A motion was made “Do we have a WARAC Swapfest for 2022?” The vote was almost unanimous NO.
 - Results will be published in next months Hamtrix.

- 5.) Reprint of the WARAC Club Membership Booklet. Dave WB9OWN will create a PDF **but only with currently paid members**. Paul W9PCS related a personal experience of executing this motion with another club; this irritated the lapsed members. Do we really want to do this? The club president Frank K9FZR will consider the implications before doing this.
- 6.) May Club Meeting will be a face to face, details to follow.
- 7.) Fund Raising Frank KA9FZR will contact Sendik's to request a fundraising event(s) in New Berlin.
- 8.) WARAC running a remote station for the members? This is a philosophical question for the membership. Is there interest? Who will host it? How about the club finance a station? Your thoughts?

Meeting Ended @ 8:27pm

Respectfully submitted,
 David Garnier WB9OWN
 Secretary WARAC, January 26, 2021 • —• —••

West Allis Radio Amateur Club – Sign In Sheet
 1/26/21 Zoom Logon Listing

1 Frank Humpal KA9FZR
 2 Chuck Dellis W9WLX
 3 Steve Dryja NO9B
 4 David Garnier WB9OWN
 5 Mike Johnson WO9B

6 Tom Macon K9BTQ
 7 Bill Reed N9KPH
 8 Howard Smith WA9AXQ
 9 Paul Sperbeck W9PCS
 10 Phil Tollefson WA9AQL
 11 Ewin Von de Ehe WI9EV

Hamtrix Sales Corner

Microcontroller Projects for Amateur Radio

All the information you need to build fascinating projects using the Arduino, STM32 (“Blue Pill”), ESP32, and Teensy 4.0 micro-controllers.

Unfamiliar with C or C++ programming? No problem. Microcontroller Projects for Amateur Radio provides all the introduction you need to build projects such as a programmable power supply, a signal generator, a DSP mic processor, and more!

Some of the practical hands-on projects featured:

- The Morse Code Tutor - learn and practice sending and receiving methods, with or without Farnworth encoding.
- The CW Messenger allows you to send up to 50 “canned” CW messages, that are completely changeable in the field without a PC.
- The Mini Dummy Load is small enough to fit in a shirt pocket, can handle up to 30W, includes an OLED display that shows RF power, yet can be built for around \$20!
- The Double-Double Magnetic Loop antenna sets a new standard for small (3' diameter), multi-band operation and includes remote tuning.

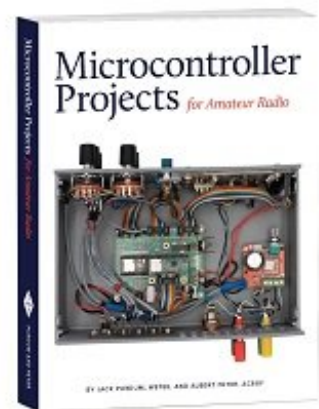
Special Member Price! Only \$34.95 (regular \$39.95)

Product Details

Softcover: 400 pages

One Copy
New
Price \$25.00
Donated to club by
Howard WA9AXQ

Call or email Frank
KA9FZR
KA9FZR@gmail.com
414-425-0794



News Items

MKE DMR Repeater Update: Last September, the MKE DMR Repeater (KB9ZB Repeater 442.20625 Mhz) got a new home at the Capitol Drive Antenna Farm site. The repeater owner, Ron Henry, KB9ZB, has been very active in tweaking the system to maximize its capabilities. Turns out Ron will be adding another repeater site in the Pewaukee area to the Chicagoland repeater system which serves the Milwaukee area. In addition to being a new repeater, the new site will also house a remote receiver for the MKE repeater. Ron is going through the coordination process currently and hopes the new system will be online in the next couple of months.

Additionally, though not as far along, Ron is looking to add a remote receive site for the MKE system in the Hales Corners/Franklin area. Stay tuned.

Dude-Star: It's a brave new world in the realm of Digital Voice (DV) communications. Here is some software for you to try out and get your feet wet...and all you need is a computer. Well, maybe a bit of fussing around. OK and a DMR ID wouldn't hurt. Yeah and a DSTAR, P25 ID ect is actually required to muck with those modes.

Dude-Star is the work of Doug McLain, AD8DP, that "connects to D-Star, DMR, Fusion, P25, NXDN, M17 reflectors and repeaters via UDP. It also supports AllStar as an IAX client. It is compatible with all of the AMBE3000 based USB devices out there (ThumbDV, DVstick 30, etc) and also implements open source software vocoders for all modes. This software is open source and uses the cross platform C++ library called Qt. This software will build and run on Linux, Windows, and Mac OSX."

Check out AD8DP, <https://www.qrz.com/db/AD8DP>, to get more info and download links. WARNING: This is Alpha grade software. But what a gas to use. Give it a try.

WSJT-X Update: The busy folks at the Joe Taylor led WSJT-X project have released an update to their very popular, trend setting digital software. The main beneficiaries are the users in the LF and MF bands with a new modes FTS4 and FTS4W. WSJT-X 2.3.0 is the new version. Go get it.

But wait. Literally hold the presses. Yet another, newer version is released: WSJT-X 2.4.0-rc1. Who does that? Who releases a beta version literally on top of a stable version? Why the WSJT-X team, that's who.

Don't disparage, get on board. The new RC version brings the anticipated Q65 mode into play. Joe and company may be trying to catch lightning in a bottle for the third time. Only way to find out. Go install and give it a shot.

The new versions are available at: <https://physics.princeton.edu/pulsar/k1jt/wsjsx.html>

Sophisticated Soviet spy radio discovered buried in former forest in Germany

By Tom Metcalfe - Live Science Contributor

It was buried shortly before the fall of the Iron Curtain.

<https://www.livescience.com/soviet-spy-radio-discovered-germany.html>



The Soviet spy radio was found buried beside a path through a former forest near the German city of Cologne, a few miles from a nuclear research center and a military airbase.

(Image: © Jürgen Vogel/LVR-LandesMuseum Bonn)

Archaeologists digging for the remains of a Roman villa near the German city of Cologne have found a sophisticated Soviet spy radio that was buried there shortly before the fall of the Iron Curtain.

The spy radio was buried inside a large metal box that was hermetically sealed with a rubber ring and metal screws. Although the radio's batteries had run down after almost 30 years in the ground, the box hissed with inrushing air when it was opened.

"Everything in the box was carefully encased in wrapping paper — it is a factory-fresh radio," said archaeologist Erich Classen from the Rhineland Regional Association (LVR).

The buried box and the hidden radio were found in August 2019 by a team of archaeologists digging near what was once a path through the Hambach Forest, about 20 miles (30 kilometers) west of Cologne, in an area earmarked for an open-cast lignite mine and now cleared of trees.

They expected to find fragments from a Roman-age settlement thought to have been built in the area, and so they were surprised when they instead unearthed a pit and the metal box.

"We think the radio will work if a new battery is available, but we didn't try," Classen said. "Restoration work was not necessary."

Iron Curtain

The radio has been identified as a model R-394KM transmitter and receiver — code-named "Strizh," meaning "Swift" — that was manufactured in the Soviet Union in 1987. It was carried by agents into Western Europe shortly after that, and only a few years before the fall between 1989 and 1991 of the "Iron Curtain" of communism that divided Eastern and Western Europe.

The scientists suspect agents would have used the spy radio to send secret reports back to the Soviet Union about observation of the Jülich Nuclear Research Centre, about 6 miles (10 km) west of where it was found; or of the military air base at Nörvenich, about the same distance to the southeast, where U.S. Pershing nuclear missiles were based until 1995.

It's possible that "Stasi," or State Security Service agents from the Soviet-controlled German Democratic Republic in the east of the country buried the spy radio in West Germany for future use, Classen said.

It may also have been a back-up in case a spy's other radios were damaged or seized.

The high-frequency or shortwave radio was capable of transmitting and receiving messages as far as 750 miles (1,200 km) — far enough to reach Warsaw in Poland, which was then part of the Soviet bloc.

But the pristine condition of the buried radio suggests that it was never used, and it was probably forgotten and left in the ground soon after the fall of the Iron Curtain, Classen said.

Spy secrets

Some features of the Soviet spy radio hint at who might have used it.

Unlike most other radios of the same model, which are labeled in Russian using the Cyrillic alphabet, the controls of the radio found in the Hambach Forest area are labeled in English and the Roman alphabet.

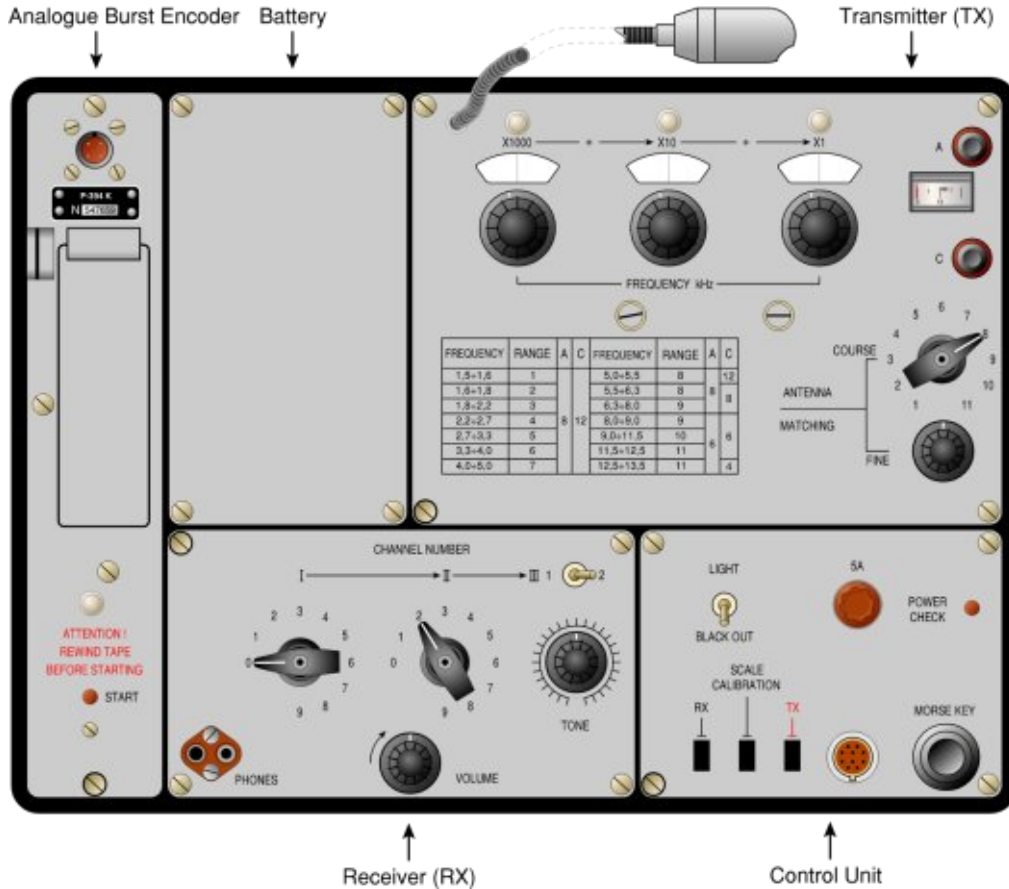
That suggests it was designed to be used by a German or an English speaker, rather than a Russian; but it may also have been a form of camouflage, to hide the true origins of the radio in the Soviet Union.

The paper wrapped around the radio, however, had sequences of numbers in Russian handwriting, giving positions of the dials on the radio that could be used — similar number sequences have been found on Soviet checklists, Classen said.

It's unlikely that further details of the mystery of the Hambach Forest spy radio will be found, given that it's been so long since it was buried. But the spy radio itself is now part of the LVR's collection, and it is on display at the LVR-Landes Museum in Bonn until March 29, Classen said.

Some of the ancient artifacts from the same dig are also on display in the museum, but archaeologists haven't yet determined exactly how old they are, he said. • —• —••

More info on the R-394KM transmitter and receiver at <https://cryptomuseum.com/spy/r394/r394k.htm>
 Pictures below from site



Generator

According to the manual [3], a separate hand-operated power generator was supplied in order to charge the batteries in the field whenever no mains power was available. Charging the batteries is not an easy task and takes several hours, for just a few minutes of operation.

The generator is identical to the generators supplied with other Russian spy radios.



CW Practice

One of the best and maybe the only way to get better at CW is practice. Having someone else who also wants to practice also helps. Just makes it more fun.

The West Allis Radio Club is going to try to help. We are running a CW practice net on Monday at 8pm
The repeater is 147.135+ 141.35 the CW portion is on HF 28.060 MHZ

Mike WO9B has been joining me and setting up some practice but we are open for suggestions on where to go with this. Come join us.

• — • — ••

WARAC Members:

The club's new fiscal year began November 1st, which means that dues for the 2020 to 2021 year are payable now.

Since we are not holding physical meetings due to the COVID 19 virus, we are asking that you handle your membership in one of the following ways:

Life Members

- Please mail the club (PO Box 511381, New Berlin, WI 53151) a completed application so that we can update our membership records.

Other Members

- The preferred method of payment would be via PayPal using the "Friends and Family" option. By using this option, the club does not incur the usual PayPal transfer fee. Use this address:

waracpp@warac.org.

- Mail a check payable to WARAC at PO Box 511381, New Berlin, WI 53151.

- If you prefer, you can mail a cash payment to this address as well. A receipt will be emailed to you at your address of record

- **Whichever option you choose, we would appreciate having a completed application mailed to us so that we can ensure that our membership records are up to date.**

And please, please, please try to take care of your dues payment by the end of December. We will be publishing a new electronic membership directory early next year, and if we haven't received your dues by this date, your name will not be included in the directory.

Thanks in advance for your help! • — • — ••



West Allis Radio Amateur Club, Inc. MEMBERSHIP APPLICATION

Name	Call	Handle	
<hr/>			
Address			
<hr/>			
City	State	Zip	
<hr/>			
Phone	Email Address		
<hr/>			
Spouse's Name	Wedding Ann.	Birthday	
<hr/>			
License Class	Expiration	Licensed Since	
<hr/>			
Membership In	<input type="checkbox"/> ARRL	<input type="checkbox"/> Amsat	
		<input type="checkbox"/> Other	
<hr/>			
Operational Station	<input type="checkbox"/> Fixed	<input type="checkbox"/> Mobile	
		Bands:	
<hr/>			
Would You Be Willing To Serve	<input type="checkbox"/> On A Committee?	<input type="checkbox"/> As An Officer?	
<hr/>			
Club Activities You Would Like To Participate In			
<input type="checkbox"/> Field Day	<input type="checkbox"/> Programs	<input type="checkbox"/> Sweepst	<input type="checkbox"/> Hambriz
<input type="checkbox"/> Elmer	<input type="checkbox"/> Sunshine	<input type="checkbox"/> Education	<input type="checkbox"/> Community Service
<input type="checkbox"/> Public Relations	<input type="checkbox"/> Scholarship	<input type="checkbox"/> QSO Party	
<hr/>			
Class Of Membership:	<input type="checkbox"/> Full	<input type="checkbox"/> Associate	<input type="checkbox"/> New
			<input type="checkbox"/> Renewal
<hr/>			
Dues Paid:	<input type="checkbox"/> Full \$15.00	<input type="checkbox"/> Associate \$10.00	
	<input type="checkbox"/> Family \$18.00	<input type="checkbox"/> Student \$10.00	
	<input type="checkbox"/> Retired \$10.00		
<hr/>			

I hereby apply for membership in the West Allis Radio Amateur Club, Inc. in the membership class indicated above. I agree to abide by the Constitution and By-Laws of the club and any rules or conditions that may be set forth in accordance with the Constitution and By-Laws.

Applicant	Date
<hr/>	<hr/>
Secretary	Date
<hr/>	<hr/>
Treasurer	Date
<hr/>	<hr/>
Accepted for Membership	Date
<hr/>	<hr/>

Meetings on the 2nd Tuesday of the month at:
New Berlin Community Center
14750 W Cleveland Avenue

Bring your completed application to a club meeting or mail with dues payment to this address:
West Allis Radio Amateur Club, Inc.
P. O. Box 511381
New Berlin, WI 53151-1381

Elephant cage antenna



----Zoom Telephone info----

Dial by your location

+1 646 558 8656 US (New York)

+1 669 900 9128 US (San Jose)

+1 253 215 8782 US (Tacoma)

+1 301 715 8592 US (Germantown)

+1 312 626 6799 US (Chicago)

+1 346 248 7799 US (Houston)

Meeting ID: 647 484 5588

Passcode: 434973 • —• —••

Officers and Board
President
Frank Humpal KA9FZR

Vice President
Steve Dryja, NO9B

Secretary
Dave Garnier WB9OWN

Treasurer
Bill Reed N9KPH

Directors
Tom Macon K9BTQ
Phil Tollefson, WA9AQL

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