

CQ CHATTER

DECEMBER 2024

VOLUME B24 • ISSUE 10

WOOD COUNTY AMATEUR RADIO CLUB

President	KG8FH	<u>Jeff Halsey</u>
Vice President	WE8TOM	<u>Tom Leingang</u>
Secretary	N1RB	<u>Bob Boughton</u>
Treasurer	KD8NJW	<u>Jim Barnhouse</u>
Board Members	WB8NQW/KE8QGV	Bob Willman/Roger Weith

Kick-off Banquet

Scheduling of the WCARC annual kick-off banquet has been confirmed. It will be held on Monday, January 13, 2025. Location is the Country Farmhouse restaurant at 117 E. Main St., in Wayne. Ordering will take place from a limited menu. Plan to arrive around 6 PM.

This event gives all WCARC members and friends a chance to communicate face-to-face (eyeball QSO) compared to the usual RF contact. Bob-WB8NQW (blcksmth@reagan.com) is handling reservations, and would like to have them at least a week ahead of time so that the staff can get a reasonable head count. This is a great opportunity for new members and old to QSO with the person behind that "voice". ■

VLF Transmitter "SAQ" to Transmit CW for 100th Anniversary

from *Amateur Radio Daily*

To celebrate the 100th anniversary of its original transmission across the Atlantic Ocean, [Grimeton Radio Station](#) in Sweden will **activate** its original call sign (SAQ) and transmit a CW message on December 1st. The CW message will transmit on 17.2 kHz at 10:00 UTC using an alternating current generator.

On December 1st, 1924, the VLF transmitter, with call sign "SAQ" at Grimeton Radio Station, was put into commercial operation, with transmissions across the Atlantic ocean, to the receiving

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Net Check Ins-I

Nov 5 **Traffic: 0**
WB8NQW **(NCS)**

WD8LEI
W8PSK
N1RB
KD8RNO
KE8CVA
KC8EKT
KG8FH
KA8VNG
KD8VWU
KE8WTG
WE8TOM
KE8PJM
KF8BGD

(14)

Nov 12 **Traffic: 0**
N1RB **(NCS)**

KE8CVA
KC8EKT
KG8FH
WD8LEI
KE8PJM
KD8NJW
WB8NQW
KE8WTG
KD8VWU
KD8RNO
WE8TOM
KF8BGD
KE8QGV

(14)

Brain Teasers

1. What is the resistance of a circuit in which a current of 3 A flows through a resistor connected to 90 V?
 - a.) 3 Ω
 - b.) 30 Ω
 - c.) 93 Ω
 - d.) 270 Ω
2. What is the term that describes a device's ability to amplify a signal?
 - a.) gain
 - b.) forward resistance
 - c.) forward voltage drop
 - d.) ON resistance
3. What causes tropospheric ducting?
 - a.) discharges of lightning during electrical storms
 - b.) sunspots and solar flares
 - c.) updrafts from hurricanes and tornadoes
 - d.) temperature inversions in the atmosphere

† *errata: error in last month's answer to question #2: correct answer is **c** and not **d***

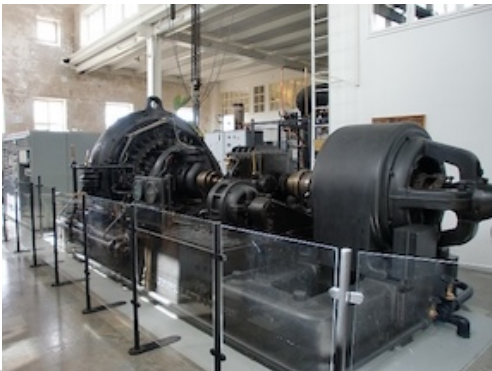
December Contests

The contest lineup for the month of December is given below. Please note that the WARC bands (60, 30, 17 and 12 m) are never open to contesting.

Dec 6-8	<i>2200 to 1600 Z</i>	160 m
ARRL 160 meter 'test		CW
Dec 14-15	<i>0000 to 2359 Z</i>	10 m
ARRL 10 meter 'test		CW/SSB
Dec 21-22	<i>1400 to 1400 Z</i>	160 m to 10 m
Croatian DX 'test		CW/SSB
Dec 22	<i>1800 to 2359 Z</i>	160 m to 10 m
OK/OM DX 'test-CW		CW
Dec 22	<i>1800 to 2359</i>	80 m to 10 m
ARRL Rookie Roundup-CW		CW
Dec 30	<i>1000 to 2159 Z</i>	80 m to 10 m
YOTA 'test		CW/SSB

VLF from p. 3

station at Riverhead and the replying transmitter station at Rocky Point, both on Long Island, NY, USA.



Program & transmission schedule:

- 09:00 UTC The doors to the transmitter hall will open.
- 09:20 UTC [Live YouTube broadcast](#) begins.
- 09:30 UTC Start-up of the Alternator.
- 10:00 UTC Transmission of a message

continued on p. 7

Net Check Ins-II

Nov 19

Traffic: 1

KD8VWU (NCS)

KE8CVA

KC8EKT

W8PSK

KG8FH

KF8BGD

KG8FH

KE8NEC

WD8LIC

WD8LEI

W8PSK

WB8NQW

KD8NJW

KE8QGV

KE8PJM

KD8RNO

WE8TOM

KE8WTG

N1RB

K8DLF (18)

Nov 26

Traffic: 0

(NCS)

KG8FH

KE8CVA

KC8EKT

WD8LEI

WB8NQW

W8PSK

KE8WTG

KA8VNG

N1RB

KD8RNO

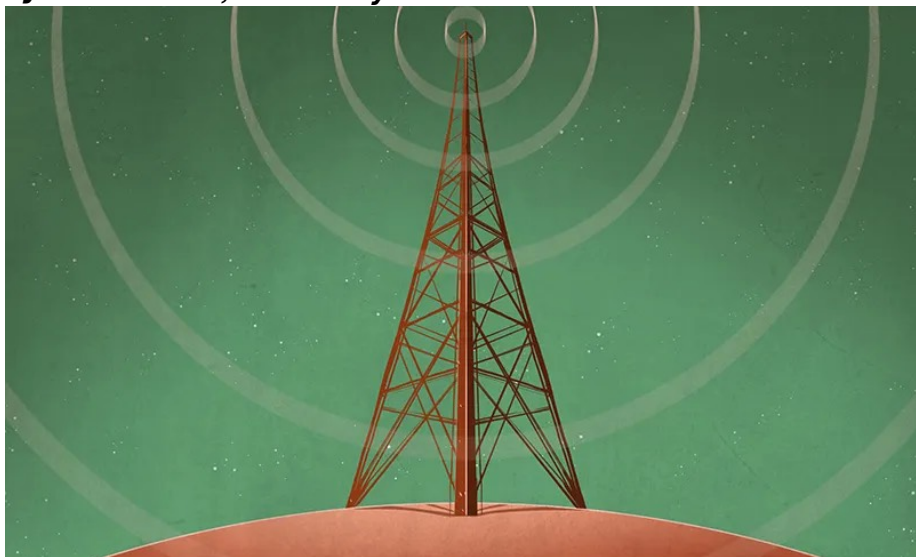
WE8TOM

KE8PJM

NM8W (13)

Silent Antenna Tuning

by Al Williams, Hackaday



If you want to deliver the maximum power to a load — say from a transmitter to an antenna — then both the source and the load need to have the same impedance. In much of the radio communication world, that impedance happens to be 50Ω . But in the real world, your antenna may not give you quite the match you hoped for. For that reason, many hams use antenna tuners. This is especially important for modern radios that tend to fold their power output back if the mismatch is too great to protect their circuitry from high voltage spikes. But a tuner has to be adjusted, and often you have to put a signal out over the air to make the adjustments to match your antenna to your transmitter. There are several common designs of antenna tuners, but they all rely on some set of adjustable capacitors and inductors. The operator keys the transmitter and adjusts the knobs looking for a dip in the SWR reading. Once you know the settings for a particular frequency, you can

continued on p. 6

Brain Teaser answers: (T) 1-b, 2-a, 3-d

WCARC Weekly Net

Tuesdays at 2100 all year

147.18 MHz 67 Hz PL

Net Control Roster

Nov	26	KG8FH
Dec	3	KD8NJW
Dec	10	WB8NQW
Dec	17	N1RB
Dec	24	KD8VWU
Dec	31	KG8FH

NEXT MEETING

Business Meeting

Monday, December 9

TIME: 7:30 PM/7:00 EB

PLACE:

Sheriff's Training Room
E. Gypsy Lane Rd. &
S. Dunbridge Rd.
Bowling Green, OH

10 meter Nets

Informal SSB group meets

Sunday @ 20:30 local on

28.335 MHz

Informal CW group meets

Tuesday @ 20:00 local on

28.050 MHz

Fusion Net

Thursday

@ 19:30 local

on 442.125 MHz

Wires-X Operators

welcome

Informal net

silent from p. 4

probably just dial it back in later, but if you change frequency by too much or your antenna changes, you may have to retune.

It is polite to turn down the power as much as possible, but to make the measurements, you have to send some signal out the antenna. Or do you? Several methods have been used in the past to adjust antennas, ranging from grid dip meters to antenna analyzers. Of course, these instruments also send a signal to the antenna, but usually, they are tiny signals, unlike the main transmitter, which may have trouble going below a watt or even five watts.

NEW GEAR

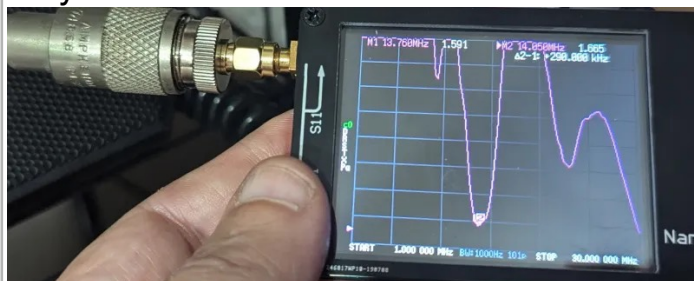
However, a recent piece of gear can make this task almost trivial: the vector network analyzer (VNA). Ok, so the VNA isn't really that new, but until recently, they were quite expensive and unusual. Now, you can pick one up for nearly nothing in the form of the NanoVNA.

The VNA is, of course, a little transmitter that typically has a wide range coupled with a power detector. The transmitter can sweep a band, and the device can determine how much power goes forward and backward into the device under test. That allows it to calculate the SWR easily, among other parameters.

IN PRACTICE

This sounds good, but how does it work? Well, to find out, I took a long wire

connected to an MFJ Versa Tuner II and fed the NanoVNA's TX port to the tuner. With the tuner in bypass, the screen looked like the first image. It actually had a pretty low SWR near 14 MHz, but everywhere else was not going to work very well at all.



The antenna happened to have a natural dip on 20 meters. The range of measurement is 1 to 30 MHz.

The next step was to switch the tuner into the circuit. Ideally, you could *continued on p. 7*

Field Day Results In

The results for Field Day 2024 have been released in the December, 2024 QST. WCARC worked in class 3A—the relative ranking for K8TIH is shown below

Wood Co. ARC					
K8TIH	184	2	8	1,162	OH
David M. Fiedler Memorial ARC					
K4WAR	249	2	7	1,158	GA
Northeast MO ARC					
W0CBL	193	2	8	1,144	MO
Skyline ARC					
K2IWR	184	2	7	1,122	WNY
Albany ARC					
W4MM	110	2	6	1,102	GA
Spirit Mountain ARC					
KS7MC	149	2	3	1,086	AZ

Many thanks to all the people who participated in this activity last June. ■

silent from p. 6

infinitely vary the inductor and both capacitors, but making roller inductors is a cost, so many tuners — including this one — have switches that select taps on the inductor, meaning you can only change it in fixed steps. That isn't usually a problem, though, because you can adjust the capacitors to make up for it.

Since you aren't transmitting, there's no rush, and you can easily switch things around and turn knobs until you can find a null. If you were using the actual transmitter, you'd want to avoid switching the inductor "hot" because the switch contacts won't appreciate any high-power RF.



The tuner created a few dips, one on the 40 meter band

I centered the frequency range around 7 MHz and found the lowest setting I could on the tuner. Then, I zoomed back out to the entire HF band. Not bad. I went through and found null spots for all the ham bands. It was also possible to

measure the SWR for bands I can't transmit on (for example, 15 MHz, to listen to WWV).

Once I had jotted down all the settings, it was time to reconnect the transmitter. Well, technically, a transceiver — in this case, an Icom IC-7300. Even without transmitting, having the knobs adjusted correctly definitely helped with receiving, often strikingly so. ■

VLF from p. 3

Test transmissions are scheduled for November 29th between 13:00 - 16:00 CET.

- Tickets for attending the event in person are [available](#).
- SAQ QSL cards will be available through an [online form](#).
- An amateur radio station will also be commemorating the event with call sign [SK6SAQ](#) on the following frequencies:

- 3 517.2 kHz CW
- 7 017.2 kHz CW
- 14 017.2 KHz CW
- 3 755 kHz SSB
- 7 140 kHz SSB

For all those special event chasers out there, this is a big one with important historical implications. Good hunting!

Foxhunt Fun after Breakfast on Nov 2

On Saturday, November 2, a foxhunt was organized. The festivities began shortly after the bimonthly Club breakfast at Frisch's was finished. Phil-W8PSK, had earlier volunteered to act as the fox, and he was given about a half hour head start to hide in his lair.

The fox then sent out a check-in notice on the K8TIH 147.18/78 repeater. The participants who checked in were: Roger/Norm-KE8QGV/KE8WTG, Bob-N1RB, Terry/Lynn-KE8CVA/KD8RNO, and Bob/Tim-WB8NQW/KF8BGD.

The fox reported that after about one and a half hours of sniffing around, the first hounds arrived at his location. First prize, consisting of bragging rights until the next one goes to Roger/Norm. ■



The hunters arrive: in order of arrival— KE8QGV/KE8WTG-Roger/Norm, WB8NQW/KF8BGD-Bob/Tim, KE8CVA/KD8RNO-Terry/Lynn

First Saturday of Each Month

**Join Mike-W8CJJ and Mike-KC8MM
for breakfast
Frisch's Big Boy—9 AM**

Photos courtesy of W8PSK and WB8NQW



L to R: Roger-KE8QGV, Norm-KE8WTG, Terry-KE8CVA, Lynn-KD8RNO, Phil-W8PSK (the wily fox), Bob-WB8NQW



**Phil-W8PSK-
the fox transmitting from his hidey hole**

**WOOD COUNTY ARC
P.O. BOX 534
BOWLING GREEN, OH
43402**

