



KARS KEY KLICKS



JOURNAL OF THE KANKAKEE AREA RADIO SOCIETY

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December 2023/January 2024

Club Elections & Cyclotrons in December

The next KARS General Meeting will be Tuesday, December 12th, 7PM at the Bradley/Bourbonnais Sportmen's Club.

There will be a video presentation on Cyclotrons! While it won't help your DX standing or contest scores, it is a fascinating description on the design and operation of this ubiquitous machine!

After the program, there will be a brief business meeting followed by elections of 2024 officers.

KARS 2024 DUES SCHEDULE

Regular Membership	\$30
Family Membership	\$40
Senior Membership	\$15
Senior Family Membership	\$20
Full Time Student Membership	\$15
Disabled Membership	\$15
Active Military	Waived

Featuring "Go" Kit Pg3, Skywarn Day Pg6, KARS Archives Pg's 7 & 8

HAPPY BIRTHDAY

December 1	WD9AYI
December 6	AC9CZ
December 7	N9LCX
December 13	KD9FVM
December 13	KD9HSD
December 19	K9YD
December 20	KF9IK
December 20	WA9WAQ
December 22	N9OE
December 25	KD9GLY
January 7	N9IOQ
January 13	KD9CGD
January 17	WD9FYF
January 20	K9XM
January 22	N9TDS
January 27	W9KX

Let us know if we miss your birthday or get it wrong.



HO! HO! HO!

Since we will have the Banquet in April, there WILL be a January Meeting!

KARS KALENDAR

Dec 12	.....KARS General Meeting
Dec 26	.....KARS Board Meeting
Dec 25	.....MERRY CHRISTMAS!
Dec 31	.....New Years Eve Dinner
Jan 9	.....KARS General Meeting
Jan 23	.....KARS Board Meeting

The Kankakee Area Radio Society operates repeaters on:

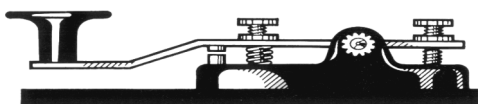
146.34/.94 107.2 PL Access

449.8/444.8 100.0 PL Access

145.130 107.2 PL Access

Additionally, KARS sponsors:

144.39 2 Wide Area APRS digi-peaters



W9AZ

ANNUAL KARS BANQUET

Last year, we tried something new for our annual banquet. Traditionally, we had the event in the month of January and called it the KARS Holiday Banquet.

The disadvantages included difficulty getting a venue reserved that time of year. It was usually very icy, windy and COOOLD and the peak of the Flu season.

Consequently, we decided to reschedule the event for April of 2023 and rename it the KARS Spring Banquet.

It was an immediate success. A pleasant spring evening beats bitter cold any time! We are planning to do the same this year and on into the future. The final date in April of 2024 will be determined later. The likely venue will probably again be the Brickstone Brewery. Further info to follow. Hope everyone will make it!

NOMINATIONS/ELECTIONS

Elections will be held for 2024 Officers and Directors at the December General Meeting.

Nominations will be entertained right up to the last minute. If you know of someone you believe would be a good candidate, let them know and nominate them.

KARS KONTEST KALENDAR

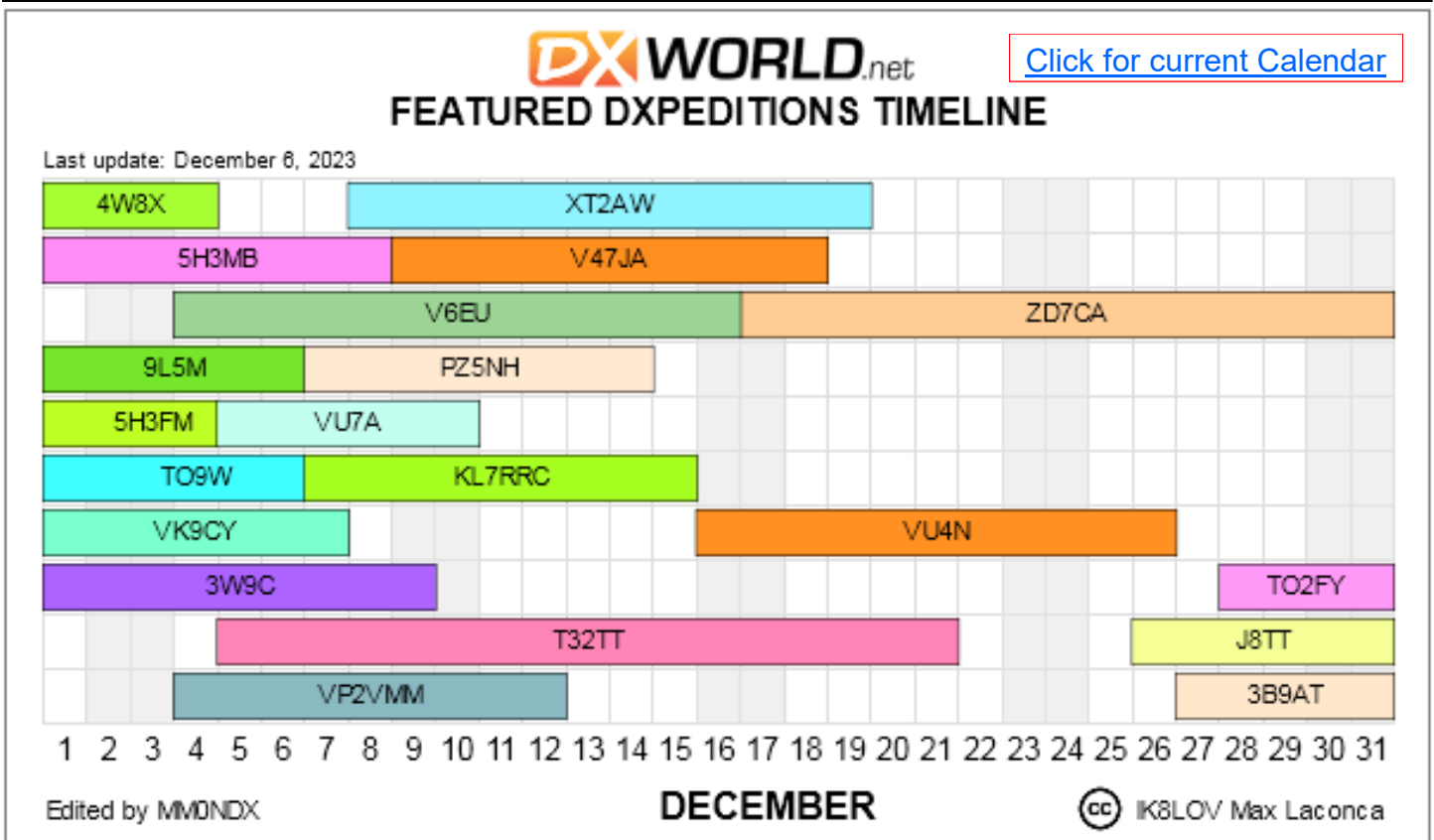
Dec 1-3	.....ARRL 160 Contest
Dec 9-10	.....ARRL 10 Meter Contest
Dec 30-31	.....Stew Perry 160 Contest
Jan 6-7	.....ARRL RTTY Roundup
Jan 13-14	.....NAQP CW
Jan 20-21	.....NAQP SSB
Jan 26-28	.....CQWW 160 CW Contest



MERRY CHRISTMAS!



KARS HOMEPAGE— **WWW.W9AZ.COM** —KARS HOMEPAGE



NEW YEARS EVE DINNER

Assuming the Wuhan Labs bio weapons division doesn't unleash another wave of highly contagious viruses to plague the world, we will once again hold the unofficial KARS New Years Eve Dinner get together.

If, like a lot of people, you don't like long, loud parties or bars but would like to spend a little pleasant time with friends ringing in the new year (and hopefully new politicians), then this is for you! This is a semi-impromptu dinner at El Mexicano's Restaurant. We have the Banquet room reserved. No reservations, no deposits, no formal dress. Order from the menu. Come and go as you please. Technically, it starts at 5PM and wraps up about 7PM but it really starts when you get there and ends when you leave! So, make sure you get there! You do not have to be a KARS member to attend!

NCS FOR DECEMBER

The net meets every Monday at 2000 hours local time on the 146.34/.94 or 145.130 backup repeater. All stations with or without traffic are invited to check in.

- December 4 KD9NPQ
- December 11 K9XI
- December 18 N9OE
- December 25 N9FD

NCS FOR JANUARY

The net meets every Monday at 2000 hours local time on the 146.34/.94 or 145.130 backup repeater. All stations with or without traffic are invited to check in.

- January 1 N9FD
- January 8 KD9NPQ
- January 15 N9OE
- January 22 K9NR
- January 29 K9XI



KARS BOARD MEETING

The December KARS Board Meeting will be Tuesday December 26th at El Mexicano's Restaurant. 6PM to eat...7PM to meet. Attend at 7PM if you don't wish to eat.

From all the Hams at KARS to all the Hams of the world...

Have a very **Merry Christmas &** A Happy New Year!



Radio “GO” Kit by N9FD

Recently, my local radio club did a presentation on portable operations, and I wanted to show what I have for a radio ‘go’ kit. Long ago I purchased some 50-cal ‘zombie’ ammo cans from the local hardware store that went on clearance after the zombie craze bubble burst. For something like \$4 for a weather-tight case, I figured they would make a nice radio go box for my IC-2720. So just a scant 6 or 8 years later (and a week before the club meeting), the following was born:

Figures 1 and 2: External and Internal Views

Everything needed to put the IC-2720 on the air is in the case. I wanted a layout that would be easy to deploy with little to no effort, but still allow for connection to different antennas and power sources as available. Here’s a list of what this particular kit has:

- IC-2720 VHF/UHF Radio (including radio main body, remote head, microphone, head connecting cable and a folding stand for the radio head)
- 12V, 18Ah LiFePO4 battery - chemistry chosen to save weight; this battery’s on-board BMS can output enough current (limited to 20A) to support full 50W operation of the IC-2720 (16A max)
- 2m/70cm dipole twin lead antenna (a 2m/70cm whip can also be in the kit when needed)
- String and Velcro straps to hang and secure the wire dipole antenna
- Power cords for connecting to alternate power sources (car power port, ¼” ring terminals)
- Divider plate for keeping radio and other accessories in place

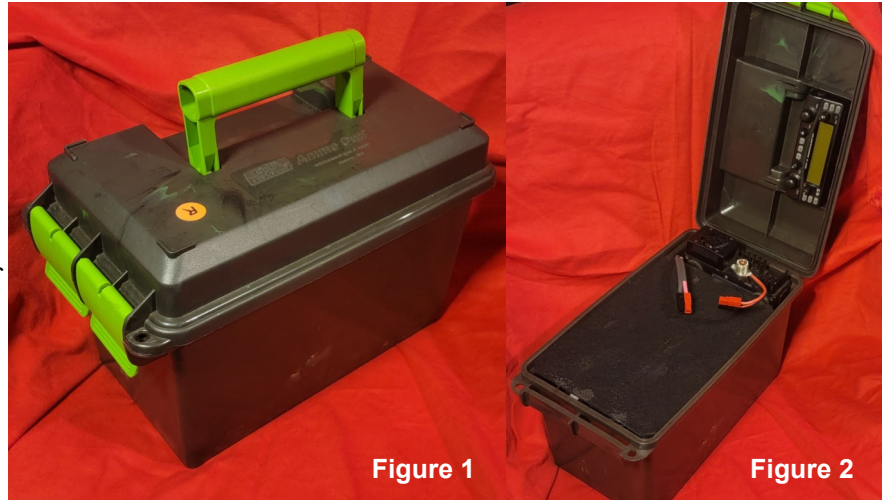


Figure 1

Figure 2



Figure 3

Figure 3: Contents with divider removed



Figure 4

Figure 4: (Most of) the contents stored inside case for an easy setup, the radio can be fitted with a whip antenna and powered from the battery, running low power (5W) in order to not damage the radio or antenna. There is enough room in the case to store the pictured whip by gently flexing it to fit. The antenna and microphone can be stored on top of the divider plate, allowing the radio to be set up without removing the divider plate (the microphone requires careful positioning in this case to miss the webbing in the lid). The jumper for the battery and control cable can be left exposed in the top of the case for easy connection. It is possible to connect the control cable and microphone to the head without removing it from its storage position in the lid of the case. The antenna can be removed and stored, then the case closed with everything else still connected. When you get to your operating location just open, attach an antenna and go.



Figure 5

Figure 5: Radio running on battery power with HT whip antenna

“Enough with the boring details on what is inside, tell us how you decided on the layout!” I hear you say. “Most rigs do not have remote control heads, how will any of this be of use to me?” “How well does the rig keep cool while sitting in a slot in the case like that? Doesn’t it overheat?” (Admit it, you didn’t think of this one until just now.)

Quite a bit of thought went into the layout. By which I mean I just winged it and figured it out as I went. With this radio, I found I could stand it on end as shown and close the lid, which I felt would best utilize the available space in the case. While this may or may not be true, deciding how to fit the radio in the case drove the design of the remainder of the layout. With the remote control head, the radio can be installed in a fixed position and the control head moved to whatever operating position is most convenient, limited only by the reach of the control cable. The IC-2720 only requires 1 cable between the head and the radio body. Unlike some remote head radios the microphone can plug into either the body or the head of the IC-2720, so a separate microphone cable back to the radio body is not required. The body is installed in the case with the front down to allow easy access to the antenna and power connectors on the rear of the radio.



Figure 6

Figure 6: View of radio inside box with remote head cable

The only items on the front of the radio are the head and microphone jacks, a data port (unused at this time), and cooling ports. Clearance for the cooling vents and accessing the head cable port is provided by some squares of adhesive-backed foam in the bottom of the case. Space is left around the radio to allow for routing cables and air flow. The fan stands well proud of the divider plate, which helps limit drawing warm air back into the radio. The top of the radio has the speaker. Clearance along the bottom of the radio is provided by the feet on the body (visible left in Figure 6). Clearance along the top is provided by the taper of the case. The case wall acts like a soundboard for the speaker, which allows for adequate audio

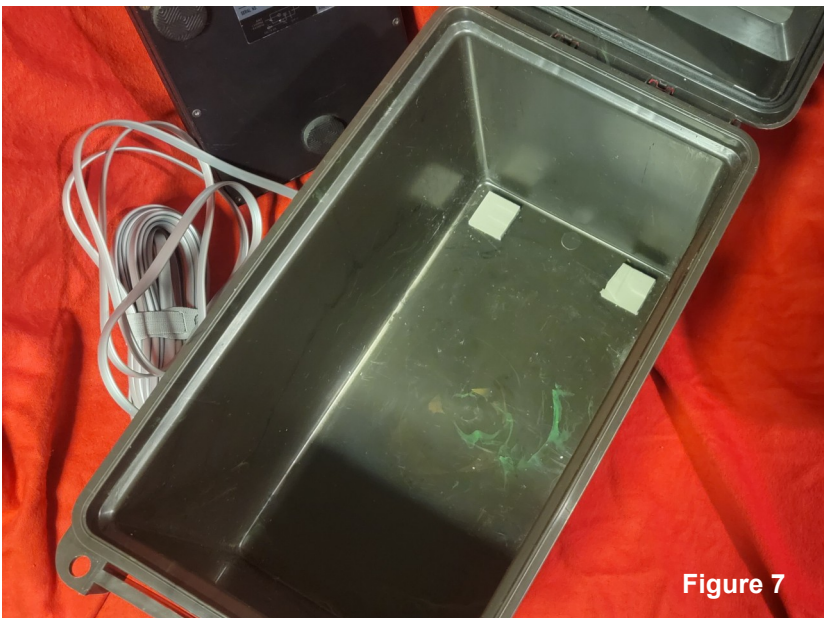


Figure 7

Figure 7: View of foam spacers in case for cable and cooling clearance

The black 'L'-shaped insert sits in the lip at the top of the case and does not reach to the bottom, leaving instead about an inch of clearance. This allows the power jumper from the battery and the remote head cable to pass back and forth between the radio and the storage area. The jumper also gives access to the battery for charging without having to completely remove it from the case. While the battery is not permanently mounted in the case, nothing is preventing it from being so if desired. A repurposed hinge acts as a head stand, with adhesive foam strips for feet to prevent scratching of tables and sliding while in use. Heavy duty plastic snap-locking strips are used to secure the head to both the hinge and the underside of the lid for storing (seen in Figures 3 and 5).



Figure 8

Figure 8: View of hinge for radio head stand, showing foam strip feet and locking strips.

For a radio without a detachable head, the radio can be removed from the slot and set on top of the divider plate to deploy, with the battery cable routing through the slot left by the divider.

Figure 9: Radios with fixed heads can be just as at-home in the kit, such as the pictured Yeasu FT-817

Before coming to the decision of mounting the radio in this configuration, serious thought was given to mounting the radio to a simple flat plate which would sit in the lip at the top of the case. The radio would store upside down inside the case, with just the 'underside' of the plate visible. (A case with a taller lid may allow the radio to be stored right side up; the recess for the handle in this case's lid prevents this.) The plate would have two feet on the

bottom on the end with the face of the radio to allow for a comfortable viewing angle when placed on a table. The feet would also serve as handles for removing the plate from the case to access the radio. For a quick field deployment, the plate can be placed back on top of the box with the radio up. A small hole or slot in the plate on the back end of the radio would allow the power jumper to be routed from the battery below. The microphone and power can be left connected to the radio while stored. Doing this allows the radio to be brought into operation with minimal effort – just flip the radio, connect an antenna and go.



Figure 9



Figure 10: Flat plate fitted on carrying case, before mounting radio, feet and additional finishing

For some users and/or radios, mounting the radio to a flat plate as described above (or removing the radio from its storage slot to sit on top of the divider) will be a better setup as complete access to the radio is guaranteed, with no need to consider things like cooling (especially important for mobile radios without a fan), cable access routes or blocking sound from the internal speaker.

A flat plate does not require bending or joining two pieces of material, making it an easier option for those without the means. For the 'L'-shaped divider, the part that extends down into the case must be narrower than the top portion to allow it to fit down inside the case. If there is no lip present in the top of your case, supports for the plate can be added to the inside of the case or attached directly to the plate. The corners of the plate or divider can be chamfered instead of trying to match the curve of the case. My kit's plate is covered with craft felt which hides the ugliness of its construction (that's what happens when you are prototyping with scrap materials), though the plate can be finished however you desire. While I used aluminum for the felt-covered plate and steel for the flat plate in Figure 10, any material can be used for the plate including metal, wood or plastic.

My IC-2720 is used in both my QTH and for foxhunting. After installing it in the kit, teardown and setup from one use to the other went from about 10 minutes to about 2 minutes, and I'm never missing anything for it. **73' Craig N9FD**

Skywarn Recognition Day 2023

Rochelle, KD9VIR and Scott, K9MY had a wonderful day helping with radio time at the Skywarn Recognition Day 2023 special event at the US National Weather Service in Romeoville Illinois.



KARS Archives 2000 - 2001

The May 2001 was the first of six times CQ Amateur Radio Magazine featured KARS Fox Hunters in it's National Fox Hunt Weekend (NFW 2001) article on Page 32. A record 8 hunt teams entered in our NFW 2000 Hunt. The resulting photo of our hunt was used in the article. Thanks to "CQ Amateur Radio Magazine" and Joe Moell, K0OV

In cars or on foot, hidden transmitter hunts are exciting ham radio adventures. Give it a try this spring, and maybe you'll become a champion at what may be the most unusual of ham radio competitions!

Announcing:

The 4th Annual CQ National Foxhunting Weekend May 12-13, 2001

Plus

Results of the 2000 National Foxhunting Weekend

BY JOE MOELL,* K0OV

Now that the snow is gone and temperatures are going up, what are hams thinking of? Hamfests, cookouts, and Field Day, right? Another outdoor ham activity is gaining popularity, too—hidden transmitter hunting, also known as foxhunting, T-hunting, bunny-hunting, and ARDF, or amateur radio direction-finding.

For the fourth year, CQ is promoting this activity by encouraging hams all over the country, beginners and experts alike, to do it at the same time during the National Foxhunting Weekend (NFW), May 12 and 13, 2001. This may be ham radio's most unusual form of contesting. Most of the participants don't transmit, the rules are different from place to place, and nobody worries about signal reports, sections, or zones.

The idea is simple: Find the transmitter (or transmitters) that your fellow ham (or hams) has put on the air. Depending on the participants' preferences, the hunt can be in daytime or darkness, on foot or in cars, covering a small park or a big state. Rather than try to list all the possibilities, let's look back at NFW 2000 and some of the unique ways

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web: <www.homingin.com>



Photo A— The Kankakee Area Radio Society had a good turnout for its National Foxhunting Weekend hunt. (Photo courtesy of Clay Melhorn, N9IO)

hams had fun with radio direction finding (RDF).

Drive to the Fox

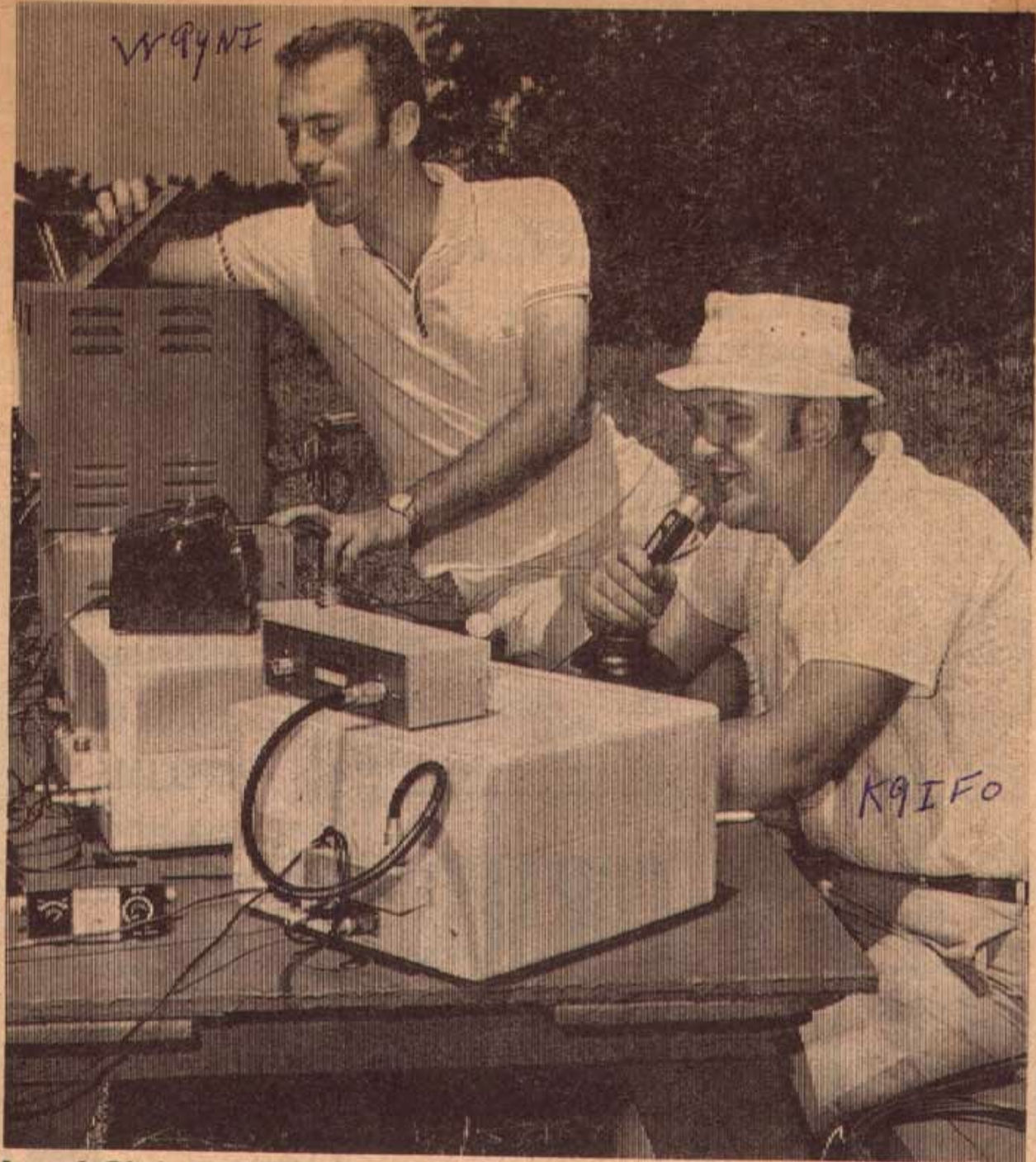
Mobile hidden transmitter hunts first became popular about 50 years ago on the 80 and 10 meter bands. Nowadays, almost all of them are on 2 meters. Some clubs have these hunts one or more times each month.

Clay Melhorn, N9IO, Foxhunt Chair for the Kankakee Area Radio Society (KARS) of Illinois, reported that the April club meeting's program on foxhunting brought out a record eight teams to the KARS NFW mobile hunt (photo A). Hider John Arrington, WD9AYI, found an old cemetery along the Kankakee River and introduced it to the group by luring them there with his hidden signal. The end of the hunt looked just like a funeral pro-

KARS Archives 1969

June 1969 the **Kankakee Journal** featured Vice President Ken W9YNI (now W9IE) and President Will K9IFO (K9FO now sk) at the KARS ARRL Field Day site.

24 Monday, June 30, 1969 Kankakee Daily Journal



Local Club In Radio Exercise

Officers of the Kankakee Area Radio Society were among 25 members who began participation Saturday in a national amateur radio field day which runs through this afternoon. Kankakee will be operating seven sta-

tions in the exercise in which some 5,000 clubs throughout the nation will be participating. Left is Ken Buser, vice president of the club. Right is Willis Bowser, president. (Journal photo)