KARS KEY KLICKS

MAY PROGRAM - HK0NA MALPELO DXPEDITION!

The next KARS meeting will be May 1st, 7PM at St. Mary's Hospital. The best access is the west side ground level doors south of the emergency entrance.

After a brief business meeting, Jerry WB9Z will present an excellent program on the Malpelo Island HK0NA DXpedition. This is your chance to experience a presentation of the #1 DXpedition of 2012 pre-Hamvention. Jerry brings color and insight following up with a question and answer session of one of the biggest DX operations of the decade! Mark your calendar. You sure don't want to miss this one!
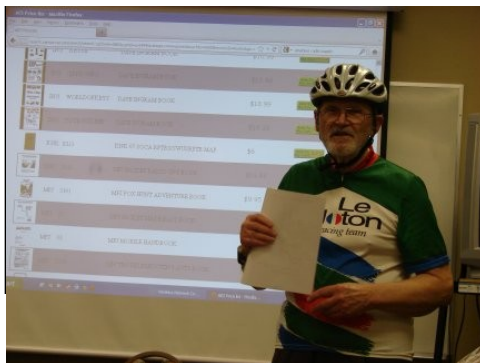
BOARD MEETING

The board meeting will be held on Tuesday, May 15th at El Campesino. Eat at 6PM. Meet at 7PM. All members are welcome.

HAPPY BIRTHDAY

May 5	KC9JQX
May 6	KC9HHT
May 8	K9FO
May 13	KC9KBR
May 17	KC9MZL

If we miss your birthday or get it wrong, please let us know!

**Will K9FO on bicycle mobile operation at the April meeting**

KARS KALENDAR

May 1……………….KARS General Meeting
May 5………….…..…..Indiana QSO Party
May 6……..DeCalb Hamfest (Sandwich, IL)
May 15………….……..KARS Board Meeting
May 18-20…….….…...***Dayton Hamvention***
May 26-27………CQWW WPX CW Contest
June 3…………..Starved Rock RC Hamfest
June 5…………..…..KARS General Meeting
June 9-11……...ARRL June VHF QSO Party
June 17………….…...6 Meter Club Hamfest
June 19……….……...KARS Board Meeting
June 23-24…………………….....FIELD DAY

The Kankakee Area Radio Society operates repeaters on:
146.34/.94   107.2 PL Access
449.8/444.8   114.8 PL Access
145.130   107.2 PL Access
Additionally, KARS sponsors:
144.39   2 Wide Area APRS digi-peaters
145.53   KARS DX Cluster
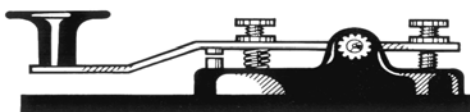
W9AZ

SAM RIPPLE W9QKF SK

It is with deep regret that we report the passing of Sam Ripple W9QKF. Sam passed away peacefully at his home in Watseka on Wednesday April 4th. Sam was a retired school teacher and long time member of KARS and ICARC. He will be greatly missed by many.

FIELD DAY HEADS UP

The KARS June meeting will feature the networking and use of Writelog. We all need to become familiar with the program as we will be using it for logging at Field Day. The club has purchased the program so that it will be easier to merge our scores after the event. If we are all using the same program, there will be no learning curve when you move from one station to another.

If you have a laptop bring it to the June meeting so the program can be loaded onto it and you can have some practice with it.

We will have a router set up at the meeting (at Field Day also) to connect everyone. This will allow contacts to be entered to the common database for dupe checking.

NCS FOR MAY

The net meets every Monday at 2100 hours local time on the 146.34/.94 repeater. All stations with or without traffic are invited to check in.

May 7	N9LYE
May 14	KC9UNQ
May 21	N9OE
May 29	N9FD

Don't forget the net!

Dayton Hamvention!

KARS HOMEPAGE— WWW.W9AZ.COM —KARS HOMEPAGE

REMOTE CONTROLED ROLLER INDUCTOR
by Ken Buser W9IE

It is not too difficult to put a motor on a roller inductor and turn it from inside the shack. But it does present a few problems. I wanted to be able to tune my Inverted L at the base of the antenna from inside the Shack and know how many roller turns were used...

1. Speed is a consideration, most motors turn too fast. Reducing voltage can slow some motors but it is also necessary to have a large gear reduction to get the speed down to what is usable.

2. Reversing direction can be accomplished by just changing the polarity of the voltage. Instant polarity change can cause problems with the motor. It is better to break or stop the motor before changing the polarity.

3. RF on the lines going out to the antenna can cause interference in the Shack. Bypass capacitors can usually help but I found a better solution is to use CAT 5 Network wire. This has a very tight twist and keeps unwanted RF out and is a cheap and easy way to solve the problem most motors only draw 150 to 300 milliamps.

4. Reversing and/or stopping the motor when the coil gets to the end of the roller inductor is mandatory. Several solutions are possible but I was given a hint from Neal WA9FTU that just works great. SPDT micro switches are placed at the ends of the Coil and when switched by the roller moving down the coil opens the circuit then stopping the voltage to the motor. Diodes are placed across the other side of the switch only allowing current flow in the opposite direction. This then allows the reversing switch in the shack to be thrown to the opposite direction and the roller then moves away from the micro switch. These can be seen in the pictures of the finished Roller Inductor coil.

5. I then found a solid state device "Toshiba TA8050P" Motor Driver that takes all the work out of switching the motor on and off and reversing it. The chip only cost $4.00 and can switch any motor voltage up to 30 Volts. The best part is that the control lines are TTL compatible.

6. Now I had the ability to interphase it to a micro processor and add the ability to know where the roller inductor was in the shack. I built the inductor controller using a" Parallax Basic Stamp" micro processor. For visual indication of the number of turns I added a serial LCD Display. To know the exact position of the roller inductor I built a shaft encoder and cut slots every 36 degrees around the disk and then was able to sense the slots as they moved thru an inferred LED sensor, which I removed from an old printer.

7. This project was one of the most enjoyable, challenging and rewarding that I have ever built. It took about 2 Weeks and many program changes to get it to work but the end result is great. I also have to give credit to Dale Monty WB9RUE, for his suggestions and advise on the basic stamp programming.

8. I won't go into the programming here but if anyone wants some info I will be glad to help.

9. It would have been easier if I had built the controller in a smaller box but it finally did fit as you can see from the pictures.

10. Note: The "CAL" button is to calibrate the roller position with the program during initial set up. The "RESET" is a CPU reset.

11. I don't know if I will be able to do what I want to do next but will be fun to try... That is to feed analog SWR data back to the program and then have an "AUTO" button which will convert the data to digital and then the controller will automatically search for "THE BEST SWR ALL BY ITSELF!"

KARS MEMBERS TO OPERATE INQP
In a fitting tribute to Howard AK9F, K9NR, K9CS and W9IE will be operating the Indiana QSO Party on May 5th from Perry County, Indiana at Howard's farm near the Ohio River. Look for them on 20,40 & 80 meters and give them a call! They will be using the special event call "N9P"
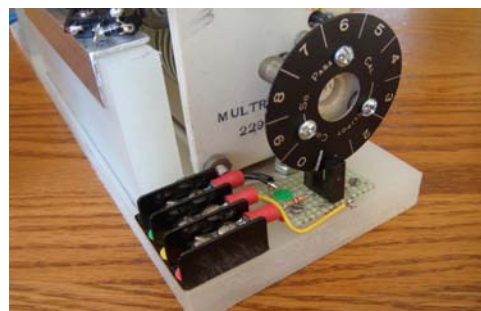

W9IE's homebrew control box
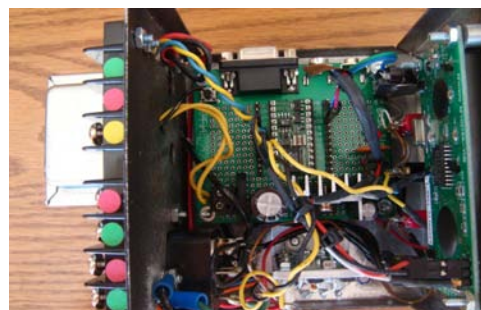
Inside the control box

The roller inductor

Remote motor adjuster

Turns counter photo interrupter

KARS HOMEPAGE— WWW.W9AZ.COM —KARS HOMEPAGE

**Ken W9IE demonstrates his remote controlled roller inductor
at KARS April meeting to an avid audience**

The best part of all is that it really works! Nice going Ken!

Large attendance at the KARS April meeting

Will demonstrates the gigantic J-Pole he uses when he operates bicycle mobile. (Schematic below.)

K9FO Bicycle J-Pole Antenna

22 9" Copper →   33¼"

300Ω TV Twinlead →   17¼"

RG-58   15⅛"

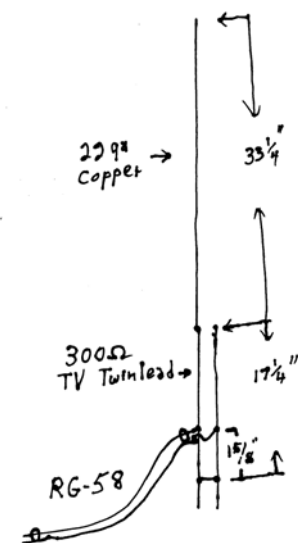Tape Antenna To A bicycle Flag
Trim For best SWR

145.130 REPEATER UPDATE
In the two pictures above, Don K9NR works on the 145.130 repeater controller. The left view shows an interior view of the S-COM 7K controller. The right view is Don's messy work bench/operating desk/business desk.

LARGE KARS CONTINGENT PREPARES FOR HAMVENTION
At this time we have a total of at least sixteen KARS members heading for the 2012 Dayton Hamvention. Eleven will head out on Wednesday, three on Thursday and at least two on Friday or Saturday. How much fun can you have in just three or four days!

It's only about 18 days till Dayton!