



# RF



## ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. LI NO. 11

P.O. BOX 3454, TUSTIN, CA 92781-3454

November 2010

### The Prez Sez.....

By Kristin K6PEQ

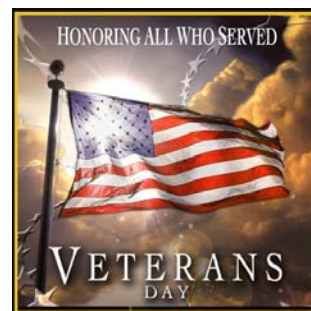


#### PREZ SAYS:

How is it already November!?!? We are coming into the busy holiday season so be sure to mark your calendar for the Holiday party on Friday, December 10<sup>th</sup>! There is a flyer in the newsletter so make sure and check it out. We had an absolutely amazing auction again this year. Thank you so much for everyone's donations and items to auction off. A special thanks to Chip, K7JA, for being our auctioneer again and getting us through all of that stuff!

We were bummed to cancel the potluck due to rain but hope to reschedule it soon! Thank you to all of the members for their understanding! Our November speaker is Wayne Barringer, KB6UJW, speaking on emergency communications preparedness. It is definitely one not to miss. We also have elections at the November meeting. Make sure to come and have your voice heard on who you would like to be in the leadership roles for this club! You can even throw your hat in the ring that night if you are interested! I hope you all have a great November and I look forward to seeing you at the meeting!

73,  
Kristin, K6PEQ



#### In This Issue: Page

The PREZ SEZ .....	1
November Program .....	1
CLUB INFORMATION .....	2
Heath kit of the Month .....	3
Cyber Hamming .....	8
2011 Board Nominations .....	8
October Auction Photos .....	9
TechTalk91 Electromagnets ...	11
Portable in the Park Photos ...	13
Tidbits .....	14
HAM Cuisine .....	15
OCARC Christmas Party .....	16
OCARC Board Minutes .....	17
OCARC YTD Finance Report ..	18
ARRL Contest Calendar .....	19
PS Hamfest Announcement ...	20
Just for Fun .....	21

The next general meeting will be:

**Friday, Nov. 19th  
@ 7:00 PM**

We will be meeting in the east Red Cross Building, Room 208. The meeting for Nov. 19<sup>th</sup> will include a presentation on emergency communication preparedness by Wayne Barringer, KB6UJW. This meeting will also include the elections of the 2011 OCARC Board of Directors.

**ORANGE COUNTY  
AMATEUR RADIO CLUB**  
[www.W6ZE.org](http://www.W6ZE.org)



**2010 Board of Directors:**

**President:**

Kristin Dankert, K6PEQ  
(714) 544-9846  
[K6PEQ@w6ze.org](mailto:K6PEQ@w6ze.org)

**Vice President:**

Paul Gussow, W6GMU  
(714) 624-1717  
[W6GMU@w6ze.org](mailto:W6GMU@w6ze.org)

**Secretary:**

Kris Jacob, KC6TOD  
(562) 619-8870  
[KC6TOD@w6ze.org](mailto:KC6TOD@w6ze.org)

**Treasurer:**

Ken Konechy, W6HHC  
(714) 744-0217  
[W6HHC@w6ze.org](mailto:W6HHC@w6ze.org)

**Membership:**

Loran Dargatz, AF6PS  
(714) 777-9018  
[AF6PS@w6ze.org](mailto:AF6PS@w6ze.org)

**Activities:**

Dan Dankert, N6PEQ  
(714) 544-9846  
[N6PEQ@w6ze.org](mailto:N6PEQ@w6ze.org)

**Publicity:**

Robbie Robinson, KB6CJZ  
(714) 978-8049  
[KB6CJZ@w6ze.org](mailto:KB6CJZ@w6ze.org)

**Technical:**

Bob Eckweiler, AF6C  
(714) 639-5074  
[AF6C@w6ze.org](mailto:AF6C@w6ze.org)

**Directors-At-Large:**

Nicholas Haban, AF6CF  
(714) 693-9778  
[AF6CF@w6ze.org](mailto:AF6CF@w6ze.org)

Larry Mallek, K6YUI  
(714) 533-0887  
[K6YUI@w6ze.org](mailto:K6YUI@w6ze.org)

**2010 Club Appointments:**

**W6ZE Club License Trustee:**

Bob Eckweiler, AF6C  
(714) 639-5074  
[AF6C@w6ze.org](mailto:AF6C@w6ze.org)

**Club Historian:**

Bob Evans, WB6IXN  
(714) 543-9111  
[bobev@netzero.net](mailto:bobev@netzero.net)

**RF Editor (rotating):**

Doug Britton, W6FKX  
(714) 742-2459  
[W6FKX@w6ze.org](mailto:W6FKX@w6ze.org)

**WEB Master:**

Ken Konechy, W6HHC  
(714) 744-0217  
[W6HHC@w6ze.org](mailto:W6HHC@w6ze.org)

**Assistant WEB Master:**

Bob Eckweiler, AF6C  
(714) 639-5074  
[AF6C@w6ze.org](mailto:AF6C@w6ze.org)

**ARRL Awards Appointee:**

Arnie Shatz, N6HC  
(714) 573-2965  
[N6HC@aol.com](mailto:N6HC@aol.com)

Larry Beilin, K6VDP  
(714) 557-7217  
[K6VDP@aol.com](mailto:K6VDP@aol.com)

**OCCARO Delegate:**

Steve Brody, N1AB  
(714) 974-0338  
[stevebrody@sbcglobal.net](mailto:stevebrody@sbcglobal.net)

**Monthly Events:**

**General Meeting:**

Third Friday of the month  
at 7:00 PM  
American Red Cross  
601 N. Golden Circle Dr.  
(Near Tustin Ave. & 4<sup>th</sup> St.)  
Santa Ana, CA

**Club Breakfast:**

Second Saturday of every  
month at 8:00 AM  
Jagerhaus Restaurant  
2525 E. Ball Road  
(Ball exit off 57-Freeway)  
Anaheim, CA

**Club Nets (Listen for W6ZE):**

28.375 ± MHz SSB  
Wed- 7:30 PM - 8:30 PM  
Bob AF6C, Net Control

146.55 MHz Simplex FM  
Wed- 8:30 PM - 9:30 PM  
Bob, WB6IXN, Net Control

145.400 MHz (-) PL 103.5 Hz  
Thur – 8:00 PM – 9 PM  
Nicholas AF6CF, Net Control

7.086 ± MHz CW **OCWN**  
Sun- 9:00 AM – 10 AM  
John WA6RND, Net Control

**VISIT OUR WEB SITE**

<http://www.w6ze.org>

for up-to-the-minute club  
information, the latest  
membership rosters, special  
activities, back issues of RF,  
links to ham-related sites,  
vendors and manufacturers,  
pictures of club events and much  
much more.

**Club Dues:**

Regular Members	...\$20
Family Members*	...\$10
Teenage Members	...\$10
Club Badge**	.....\$3

Dues run from Jan thru Dec and are  
prorated for new members.

\*Additional members in the family of  
a regular member pay the family rate  
up to \$30 per family.

\*\*There is a \$1.50 charge if you'd  
like to have your badge mailed to  
you.

## Heathkit of the Month #23: by Bob Eckweiler, AF6C



### Heathkit HD -1416 Code Practice Oscillator.

#### Introduction:

The first electronic project I ever built as a kid was a code practice oscillator; the year was around 1957. The plans came from *Popular Electronics*, and it used a single Raytheon CK-722 germanium PNP transistor. Transistors were quite new on the market, and expensive portable transistorized radios in their leather cases were all the rage. Taking a portable radio to the beach no longer meant lugging large units with tubes and large "B" batteries.



**Figure 1: The CK-722 Transistor**  
Photo courtesy of N4MW

My first code practice oscillator had just a few components but it would drive 2,000 ohm ear phones at a decent volume and had a clean tone. It ran off a pair of AA batteries as I recall. I used it to learn the code and get my novice ticket in 1959.

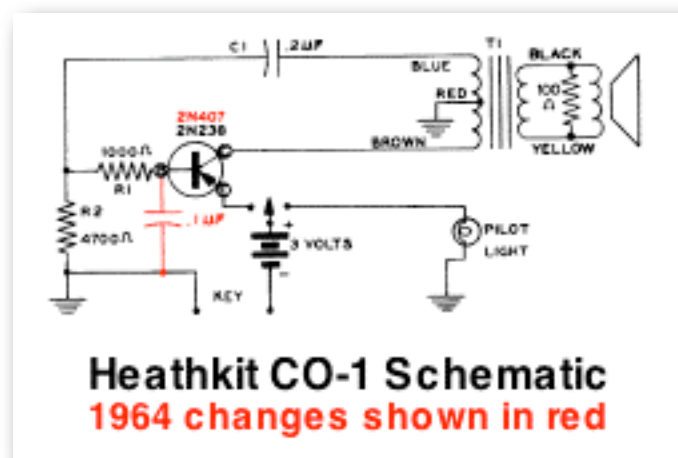
Jump ahead some fifty-three years and I acquired another code practice oscillator (CPO); it was at the OCARC auction, and of course it was a Heathkit! The HD-1416 CPO.

Heathkit manufactured Three different models of transistorized code practice oscillators over  
**November 2010 - RF Newsletter - Page 3**

the years. The first was the CO-1 which was manufactured between 1959 and 1967. In 1967 Heath replaced the CO-1 with the HD-16. Then in 1975 Heathkit introduced the HD-1416 which, over its life, was updated twice to the HD-1416A and the HD-1416H (case color changes only). All the Heathkit models came with a simple telegraph key.

#### The Heathkit CO-1:

Heath's first code practice oscillator, the CO-1 (figure 3) uses a single 2N238 germanium PNP transistor, not too different from the CK-722. A socket was used to hold the transistor, reflecting the fragile state of the early transistor. Figure 2 shows the simple circuit:



**Figure 2: CO-1 Schematic with changes**

Notice that the CPO drives a speaker and also has a switch that allows sending code using a light instead of a tone. The oscillator produces a tone around 1,000 Hz. A pair of "C" batteries power the CO-1.

The CO-1 measures 6" x 3" x 2-1/8". The panel has a small speaker grill, a switch to choose light or tone, a small #14 pilot lamp for the light and screw terminals for a key.

Later in the production of the CO-1 (February of 1964) Heath made a design change to the CO-1. They changed the transistor to a 2N407 and added a 0.1  $\mu$ F disc capacitor between the base of the transistor and ground - evidently to reduce key-clicks. The model number was not

changed, but an addendum was supplied with the manual as were the new parts. I have that addendum sheet if anyone is looking to upgrade their early CO-1. The circuit changes are shown in the figure 2 schematic of the CO-1 in red.



**Figure 3: Heathkit CO-1 CPO**  
Photo courtesy of N4MW

### The Heathkit HD-16:

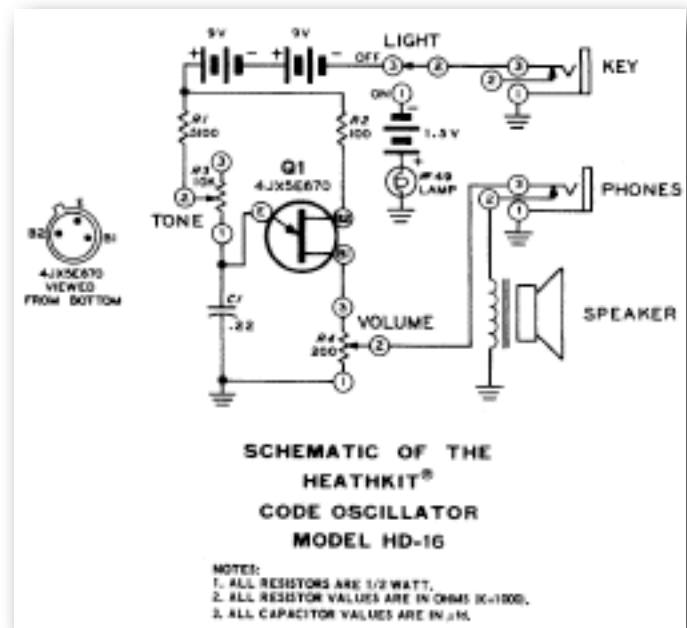
By 1967 the unijunction transistor had been introduced and became popular for a lot of oscillator devices. Heathkit took this opportunity to introduce a new CPO. The HD-16, shown in figure 4, utilizes a single unijunction transistor oscillator. The schematic is shown in figure 5. It uses a rather obscure GE 4JX5E670 transistor, which I believe is similar to the later popular 2N2646.

Like its ancestor, the HD-16 drives a speaker and can be switched to drive a lamp instead of

a tone oscillator. The case has a sloping front (quite similar to the first case I built my CK-722 CPO into) and is styled after the SB ham line color scheme of green and grey. The #49 light is on top of the case, the high impedance (150Ω) speaker and light - tone switch are on the sloping front and the volume and tone controls, as well as 1/4" phone jacks for the key and phones are on the vertical part of the front panel. The HD-16 uses three batteries, two NEDA 1604 9V batteries for the oscillator circuit and one 1.5 volt 'C' battery for the lamp.



**Figure 4: The Heathkit HD-16  
Code Practice Oscillator**  
Photo courtesy of N4MW



**Figure 5 - HD-16 Schematic**



**The Heathkit HD-1416:**

The HD1416 was introduced in 1975. It is a three transistor circuit using two transistors as a multivibrator, and one transistor as a class A audio amplifier. The unit is built into a small plastic case with a metal front panel. A printed circuit board mounts off the front panel on a small angle bracket. The back of the case is open, and the speaker, mounted in an aluminum bracket, at an angle to horizontal, bolts to the circuit board.



**Figure 6: The HD-1416 CPO**

The HD-1416 is powered by a 9 volt NEDA #1604 battery that mounts in the speaker bracket, held by four pieces of foam tape. Additional foam tape is located under the board to support the back of the printed circuit board.

The transistors used in the oscillator are a pair of 2N5249A silicon NPN transistors; the class-A audio amplifier uses an MPS-A20. A feature of the HD-1416 is that the keying arrangement allows it to be used with a ham transmitter using grid block keying (up to -400 volts), which most of the Heathkit transmitters/transceivers of the time utilized (such as the SB-400/401, HW-100/101, SB-100/101 to name a few).

The front panel is very simple with a 1/4" phone jack for phones, a volume control and two binding posts (red and black) for the key. A circuit board mounted control, easily accessible from the open back, of the cabinet, adjusts the tone from about 200 to 850 hertz. Unlike previous models, light for visual Morse code is in-

cluded with this CPO. The telegraph key continues to be provided.

In late 1985 Heathkit introduced the HD-1416A with a brown case and black binding posts for the key. In 1989 Heath again changed the color to black and designated the CPO the HD-1416H.

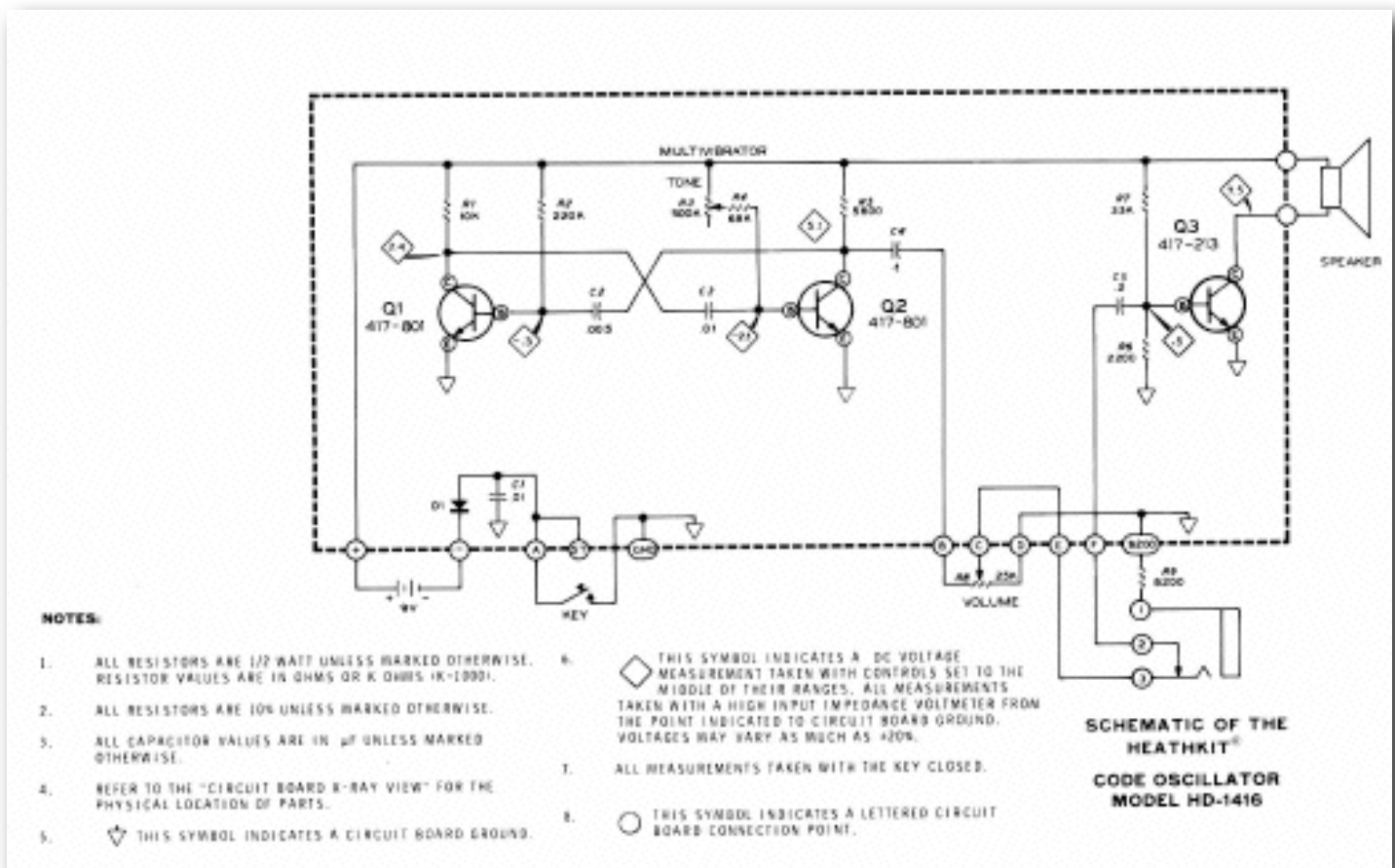


**Figure 7: The HD-1416 Less Case.**

The HD-1416 originally sold for \$9.95, in 1975, which is the same price that the CO-1 and HD-16 originally sold for. During the early eighties the price jumped to \$13.95 (Christmas 1980 catalog), \$14.95, (Christmas 1981) \$16.95 (spring/summer 1982), \$22.95 (winter 1983) and \$24.95 (Christmas 1983). In 1985 Heathkit introduced the HD-1416A and dropped the price to \$19.95 (fall 1985); it was back to \$24.95 by the time the HD-1416H came out in 1989. That is the last price I have for the HD-1416H before Heathkit quit the kit business.

**Restoring the HD-1416:**

This is a simple kit. The one picked up at the club auction did not work when I got home; also the speaker was loose, as was the circuit board. Removing the unit from the case revealed a missing screw from a bracket that



**Figure 8: Schematic of the HD-1416 Code Practice Oscillator**

mounts off the lower banana jack. Another problem, probably the biggest, was that the five pieces of foam strips that hold the battery and help support the circuit board had dissolved into a gooey mess. It was carefully cleaned up with rubber cement thinner (hard to find now-a-days but a great solvent for lots of adhesives). The circuit board was examined and a wire from the earphone jack to the board was found to be broken. It was replaced. Finally, new closed cell foam, normally used to insulate windows, was trimmed to replace the original foam. No specifications or size could be found on the original foam other than the Heathkit part number 73-39. A "best guess" was used to trim the sizes. Reassembling the kit; installing a used 9-volt battery and attaching a key (The original key was not included in the auction sale) resulted in a sweet, though harmonic note of CW as the key was operated.

### Tube Code Practice Oscillators: (Ameco, Bud and Gonset)

Before the Heathkit ever put out a code practice oscillators there were numerous other manufacturers who produced numerous models. In the fifties and even into the seventies four tube-based models were very popular in the ham world.

Bud Radio manufactured two of the units, the Codemaster CPO-128A for \$19.13 and the Codemaster CPO-130A for \$16.50 (1962 prices). The two units were identical except the 130A required an external speaker. Bud also manufactured some variants of these models.

Ameco (American Electronics Company) manufactured the CPS that was available as a kit (-K) or built (-B) and with (T) or without (L) tubes; the price ran between \$11.95 for a kit without tubes to \$14.95 for a built unit with

tubes. Ameco also made code records and later code tape cassettes for learning CW.

Gonset manufactured the Monitone #3022 (\$32.80 in 1962). It was similar to the other units but built to match their line of ham equipment.

All 4 units use a 35W4 rectifier and a 50C5 audio amplifier vacuum tube, and run off 117 V AC/DC. They all feature a 4" speaker except the Bud CPO-130A. The Bud and Gonset units came ready to use as an on-the-air CW monitor; the Ameco CPS had instructions to modify the unit to add this feature (losing the normal feature). The differences in price reflect the different components. While the inexpensive Ameco unit uses screw terminals for the key and phones, the Gonset unit has phone jacks and a rotary switch to select the function as either a CPO, a CW monitor or an AM monitor.

Early on, the Ameco and Bud units were a shock hazard because the rectified line voltage (about 140V) was present on the key terminals and contact with it while touching a grounded radio would give a good shock. Both units were updated during their production to put the key in the speaker lead and eliminate the shock hazard. Bud changed the part number to the CPO-128B, but Ameco kept the original part number.

**CODE PRACTICE OSCILLATOR, KITS**

Available in kit or wired form. Produces a pure, steady tone without clicks or chirps. Will handle a large number of headphones or keys. Converts easily to an excellent CW monitor. Variable tone control and volume control. Built-in 4" speaker. Operates on 110 volts AC or DC.

Ameco No. CPS-KL—Kit form, less tubes. Net Each.....	<b>\$11.95</b>
Ameco No. CPS-WL—Wired, less tubes. Net Each.....	<b>\$13.15</b>
Ameco No. CPS-KT—Kit, including tubes. Net Each.....	<b>13.75</b>
Ameco No. CPS-WT—Wired, with tubes. Net Each.....	<b>14.95</b>

**Figure 9: Early Ameco ad for their CPS Code Practice Oscillator from an early sixties Arrow Electronics Catalog**

### The Code Practice Oscillator Museum:

Since this is a Heathkit series, we just touched the surface of the many other CPO manufacturers and models. On the web, Dave - N4MW masters the excellent *Code Practice Oscillator Museum* website. There, numerous code practice devices are detailed; Dave has over three hundred in his collection. You may visit his virtual museum at:

<http://www.n4mw.com/cpo.htm>

Dave has graciously allowed me to use some of the photos from his website, including a photo of the classic CK-722 transistor.

73, from AF6C



*Remember if you come across any old Heathkit Manuals or Catalogs that you do not need, please pass them along to me.*

*Thanks - AF6C*

If anyone has access to Popular Electronics of the mid to late fifties, I'd really enjoy finding the code practice oscillator article that used the CK-722. and that I built way back then.

*Thanks - AF6C*

### Morse Code Update:

When was the last time the International Morse Code was updated? Some may think it hasn't changed since the eighteen hundreds, some say it changed during WWI and others say during WWII.

The truth is the last change to the code occurred in 2004 with the addition of the at-symbol "@". The need for this symbol came about due to the sending and receiving of email addresses over the air in CW.

The at-symbol is easy to remember as it is just the Morse letters A and C combined with no space: di-dah-dah-di-dah-dit.

de AF6C di-dah-dah-di-dah-dit w6ze.org.



## Cyber Hamming

by  
Doug Britton W6FKX

In this second installment of cyber hamming, I mined the internet for a couple of useful sites and provide a review of an application (app) I use on my DROID phone. I'm sure for the iPhone users, a similar app is available.

### Websites:

<http://www.californiaswap.net/index.php> A California specific site for selling ham radio gear, or for posting a "wanted" listing. Were you outbid on that one item you wanted at our club's auction last month? Here's your second chance.

<http://hfpack.com/> Have you considered putting together an HF rig and antenna in a backpack? Strike off for yonder ridge and work a few? Interesting site with information and interaction with like minded fellow backpacking hams.

### DROID App:

I've been working on increasing my Morse Code proficiency and came across the following app: **Morse Trainer Light** (free app) and **Morse Trainer** (\$2.49). When I'm not able to sit next to my rig at home, with this app I can practice while I'm driving (copying in my head of course) or anywhere with a set a earbuds or headphones. Both the free and paid app allows you to practice copying random letters, numbers, and punctuation; real call signs; fictional QSOs; or enter your own text. I've been practicing copying QSOs and have seen my speed and accuracy improve over the last month. The paid version gives you much more control over the settings of the app. Some of settings that can be adjusted in the paid version include: tone frequency, from 200 Hz to 2200 Hz; speed, can be adjusted from 2 wpm to 52 wpm (sorry its too slow for Chip); fading, simulates band conditions; and letter and word spacing. The free version doesn't allow any of these changes.  
*Highly recommended!*

73, Doug W6FKX



### LIST OF THOSE RUNNING FOR THE 2011 OCARC BOARD OF DIRECTORS

Others can be nominated to the list at the November meeting.

More than one person can run for any position on the board.

PRESIDENT	-- Paul W6GMU
V. PRESIDENT	-- Bob AF6C
SECRETARY	—Ron W6FRV
TREASURER	-- Ken W6HHC
ACTIVITIES	-- Kristin K6PEQ
MEMBERSHIP	—Jeff W6UX
PUBLICITY	—Dan N6PEQ
TECHNICAL	—Doug W6FKX
DIRECTOR AT LARGE—	
	Richard N6RU
	Larry K6YUI

This list of suggested names is not final or "all inclusive" and it is subject to change at or before the November 19<sup>th</sup> Elections.

If you want to run for a position on the OCARC Board of Directors, please contact the Elections Committee Chairman Nicholas AF6CF ([af6cf@w6ze.org](mailto:af6cf@w6ze.org)).



## Photos from OCARC 2010 Auction

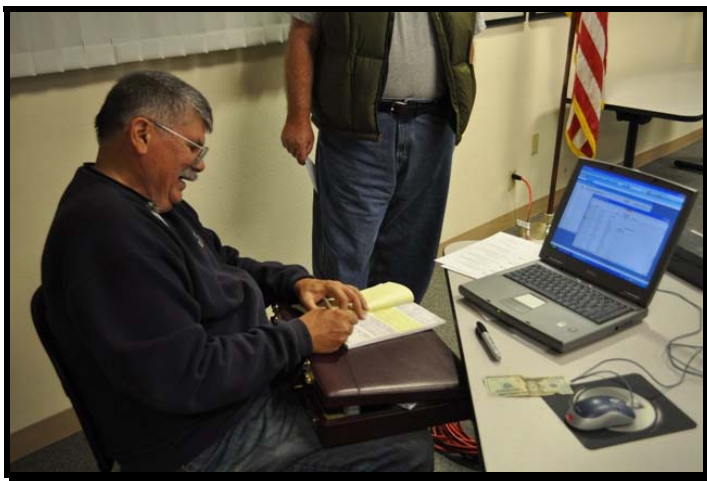
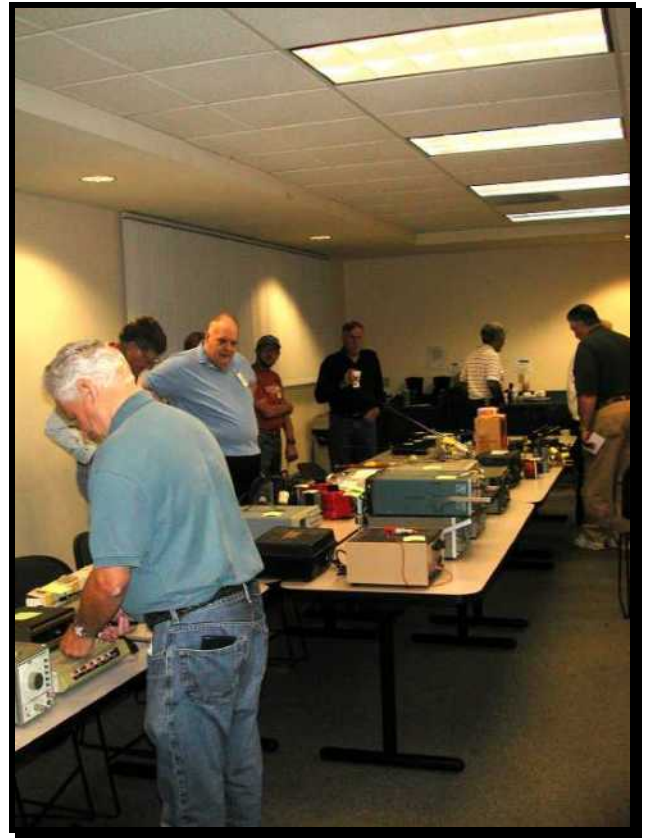
**"Best OCARC radio auction ever"**

**"158 items sold"**

**"\$600 in net income for OCARC"**

**"Kudos for Chip K7JA and his helpers Dan N6PEQ  
and Nicholas AF6CF"**





***Thank You Chip, Dan, Nicholas, Ken and Bob!***

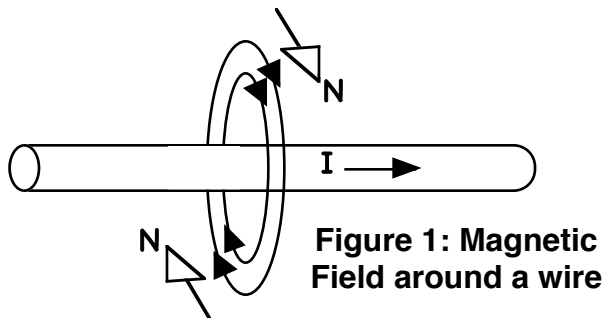


**Bob's TechTalk #44 (TechTalk #91)**  
**by Bob Eckweiler, AF6C**

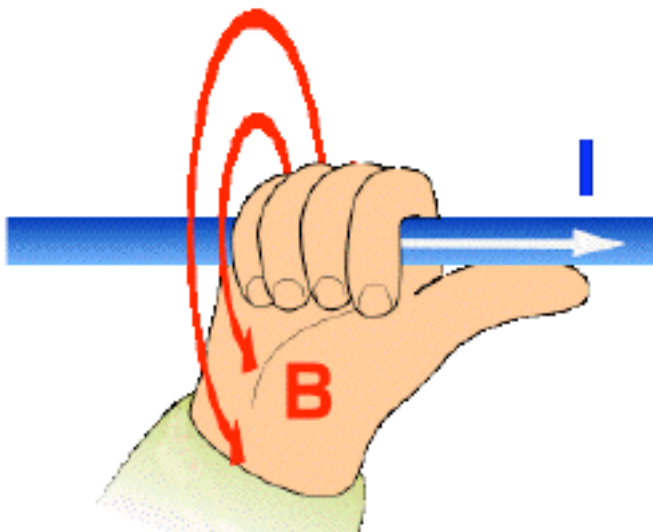
**Electromagnets:**

Last month we talked about permanent magnets and ferromagnetic materials such as iron and cobalt. This month the discussion will begin on electromagnets.

Two months ago we learned that a wire carrying a current produces an electromagnetic field circularly around the wire as shown in figure 1.



The direction the field travels can be seen by holding a compass near the wire and examining the compass needle as noted by the open arrows. The compass needle will point in the north direction of the field. An easier way to determine the direction of the field is the **Right-hand Rule** (figure 2). It states:



*If the fingers of the right hand encircle a conductor with the thumb pointing in the direction of current flow, the encircling fingers will point in the direction of the magnetic field. (Here current flow is defined as usual, positive to negative.)*

A wire may be wound as a solenoid resulting in a stronger field along the axis of the solenoid.

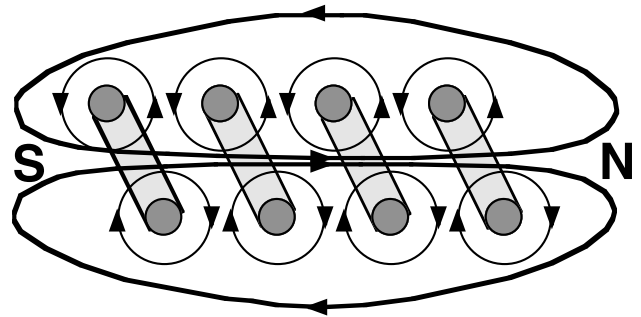
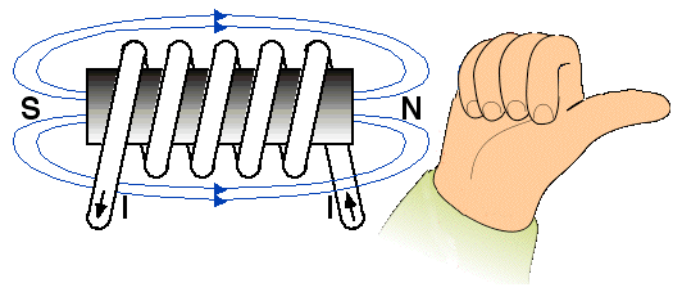


Figure 3 shows the cross-section of a solenoid coil. The current is going in the lower sections of the coil and coming out the upper sections. A field is produced around the wire; note that in between wires the fields are in opposite directions canceling each other. A stronger field traveling through the center of the solenoid results.

If the core of the magnet is made of a ferromagnetic material the result is an electromagnet that acts just like a permanent magnet as long as current continues to flow through the coil. You may use the right hand





rule around each turn of the wire to determine the direction of the field, or you can use a modified rule called the **Right-hand Rule of Solenoids**. It states:

*If the right hand grasps a solenoid such that the fingers point in the direction of current flow in the coil, then the thumb points in the direction of the magnetic flux (the north magnetic pole).*

### Ohms Law of Magnetics

When a current 'I' is passed through a solenoid with 'N' number of turns it produces a magnetizing force depicted by a fancy  $\mathfrak{S}$ . This force is known as the magnetomotive force and is the magnetic equivalent of electromotive force, or emf (voltage). It is measured in ampere-turns; abbreviated At.

$$\mathfrak{S} = NI$$

The magnetic flux, which is often depicted by the Greek character  $\Phi$ , was discussed last month and is proportional to the magnetomotive force, just like the current I is proportional to the voltage E in an electrical circuit. In an electrical circuit the proportional constant is called the resistance R. In a magnetic circuit the constant is called the reluctance and is depicted by a fancy  $\mathfrak{R}$ .

$$I = \frac{E}{R} \quad \text{Ohm's Electrical Law}$$

$$\Phi = \frac{\mathfrak{S}}{\mathfrak{R}} \quad \text{Ohm's Magnetic Law}$$

Actually  $\Phi$  is a vector quantity and the right-hand rule is used to find the vector direction. Notice the similarity of equations!

The resistance of a bar or wire is just the length  $\ell$  divided by the cross sectional area A, divided by the conductivity of the material

$\sigma$ . Thus for a given material the shorter or thicker the bar or wire the lower the resistance, and the longer or thinner it is, the higher the resistance.

$$R = \frac{\ell}{\sigma A}$$

Reluctance can be equated to magnetic resistance so:

$$\mathfrak{R} = \frac{\ell}{\mu A}$$

And  $\mu$  can be thought as magnetic conductivity, but in real life  $\mu$  is called the **permeability**.

The permeability is made up of  $\mu_0$  the permeability of free space multiplied by  $\mu_r$  the relative permeability of the material:

$$\mu = \mu_r \mu_0$$

The permeability of free space  $\mu_0$  is:

$$\mu_0 = 4\pi \times 10^{-7}$$

The value of  $\mu_r$  is very close to one for almost all materials that aren't ferromagnetic. For ferromagnetic materials  $\mu_r$  varies and can be quite large.

The permeability of ferromagnetic materials has some other interesting and important idiosyncrasies that are not evident in paramagnetic or diamagnetic materials.

Next month we'll cover permeability and hysteresis in electromagnets.



## Photos from OCARC Portables in the Park

November 6, 2010

Irvine's Jeffrey Open Space Preserve

"Thanks to Jeff W6UX and Nicholas AF6CF for organizing the event!"





**TAPR DCC2010 Presentations****download files are now available**

by Ken W6HHC

Many OCARC members may already know that TAPR is an international organization dedicated to advancing Digital Technologies for ham radio. The ARRL and TAPR Digital Communications Conference (DCC) is an international forum for radio amateurs to meet, publish their work, and present new ideas and techniques.

Just a note that all of the ABSTRACTS and file download links for PDF copies of papers and/or presentations files from the recent TAPR DCC2010 are now available (free) on the TAPR web site at:

**[www.TAPR.org/pub\\_dcc.html](http://www.TAPR.org/pub_dcc.html)**

Not only are there a ton of goodies on papers on various subjects, like the presentation by Robbie-KB6CJZ and me on “**Testing a Digital-ATV station using DVB-S**”, but there is also an interesting DSP four-part course that was held on Sunday morning called “**DSP - a short course**”.

**Thanksgiving humor....****Just a tidbit of information:**

**Call 811 before you dig, it's free**

As a SoCalGas customer, pipelines are likely to be located underground on your property. These pipelines are sometimes just inches below the surface. Before you dig for any reason, it's important to know where natural gas pipelines are located. To protect your safety and avoid costly damage, please **call 811** (toll free) at least two business days before you break ground.

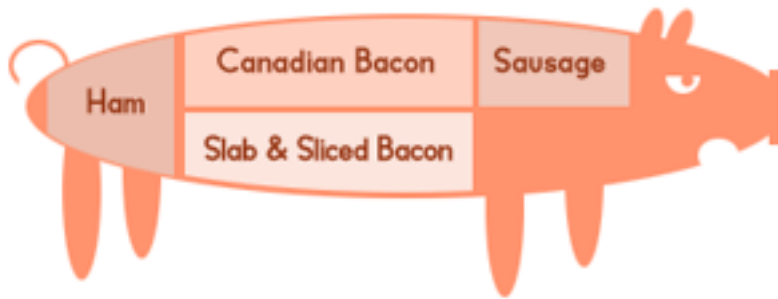
[Get more tips before you dig.](#)

**CHECK THIS OUT!**

The next time you are at HRO check out the **2011 CQ Calendar**... our very own members-the PEQ's - Kristin & Dan Dankert's HAM Radio Shack is featured in the NEWEST calendar!







## Ham Cuisine

*by Kristin, K6PEQ*

### Baked Ham with Brown Sugar Glaze

Perfect for a holiday feast!

#### INGREDIENTS:

6-8 pounds fully cooked smoked bone-in ham  
1 cup packed brown sugar  
Whole cloves  
1 tbsp. cider vinegar  
½ tsp. ground mustard

#### DIRECTIONS:

1. Heat oven to 325 degrees
2. Place ham, fat side up, on rack in shallow roasting pan. Insert meat thermometer in thickest part of ham, making sure not to rest in fat or against bone. Cover loosely and bake 1 ¼ to 2 hours or until thermometer reads 135 degrees.
3. About 20 minutes before ham is done, remove from oven. Pour drippings from pan and remove diamond shapes on fat surface of ham. Insert clove into each diamond. Stir together brown sugar, vinegar and mustard and pat or brush mixture onto ham. Bake uncovered 20 minutes longer.
4. Cover ham and let stand about 10 minutes or until thermometer reads 140 degrees.

Makes 12 servings or serves 8 hungry ham operators!

## OCARC HOLIDAY PARTY

We are going to have a great December Raffle! There are a lot of great prizes and tickets are only a dollar. What a deal! Also, there will be a special raffle for just the ladies. These tickets will not be sold but will be given just for coming. We hope that you will be able to come and share in our fun event!

**It's Time to Party!**

### ALL THE INFO!

WHEN: FRIDAY, DECEMBER 10th

TIME: 7 p.m.

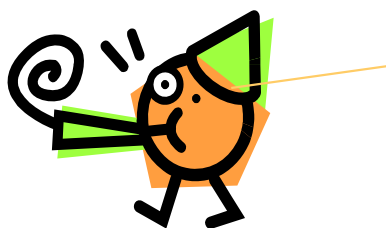
COST: \$24 per ticket

WHAT: Dinner, beverage, Dessert, Tax and Tip included in ticket price plus 1 raffle ticket.

WHO: Everyone!

WHERE: Jagerhaus Restaurant

RSVP: Please contact Kristin, K6PEQ by Friday, Dec. 3rd @ [k6peq@w6ze.org](mailto:k6peq@w6ze.org) or 714-544-9846.



### Jagerhaus

2525 East Ball Road off of the  
57 Fwy.

**OCARC**  
**Board Meeting Minutes**  
**10-9-2010**

The October OCARC Board Meeting, held at the Jägerhaus in Anaheim, was called to order at 8:18 AM by President Kristin - K6PEQ.

Roll call: All officers were present except the Secretary: Kristine - KC6TOD (in class) and Activities: Dan N6PEQ. Bob AF6C filled in for the Secretary and Kristin filled in for Activities.

**Officer Reports:**

VP: The November speaker will be Wayne Barringer - KB6UJW who will speak on emergency preparedness. November will also be elections for 2011.

Treasurer: So far this year the club has taken in \$3,277.69 and spent \$3,497.94 for a net loss of \$220.25. With the big expense of Field Day over the treasury is in good shape. [*The current balances are: \$793.13 in savings and \$4,563.20 in checking by my calculations. - AF6C*]

Activities: Kristin reports that Chip Margelli - K7JA and Dan Dankert - N6PEQ will be auctioneers for the October auction.

The pot luck is scheduled for October 30th. [See New Business]

Portables in the Park is scheduled for November 6th. [See New Business]

Holiday Party is scheduled for December 10th. [See Old Business]

Membership: 2010 full roster never published. Loran - AF6PS to email Ken - W6HHC a copy of the updated member spreadsheet. Bob - AF6C Reported that he has kept the online limited roster up to date.

Publicity: Robbie - KB6CJZ has auction flyers for HRO / Nicholas - AF6CF to take auction flyers to Ford Electronics.

MAL: Larry - K6YUI reports that with the dissolution of the Netherlands Antilles (PJ) there will be several new ARRL countries in the Caribbean. Read more about it in the ARRL Newsletter for October 7th on the ARRL web-

**Old Business:**

Speakers: All speaker spots are filled for 2010. Kristin would fill Jan. thru Mar. to give the new VP a jump on programs. Bob - AF6C Mentioned that the past years of OCARC programs are listed on our website, and is a good place to look for ideas. Kristin to email OCARRO list of speakers.

Auction: The room will open at 6 PM. Paul to confirm this with Tom - KI6GOA of the Red Cross.

Holiday Party: The holiday party is set for Friday December 10th. Grand Prize possibly an IC-7000. Women's prize baskets are being assembled. Cost to be \$24 per person which includes one opportunity drawing ticket.

**New Business:**

Radio Picnic: Portables in the Park is scheduled for Saturday Nov. 6th at 9:00 AM at an open park in Irvine. Details are in the October RF Newsletter. Jeff - W6UX to check on park permission requirements and any rules.

Pot Luck: The pot luck will be held Oct. 30 at Dan and Kristin's. They will provide hot dogs and hamburgers. Larry - K6YUI will act as chief chef. Event starts at 1 PM.

**Good of the Club:**

Ken - W6HHC reports that two members now have digital ATV transmitters (KB6CJZ and W6HHC). A tune up session was held for the transmitters at Nicholas - AF6CF's home.

**Adjournment:**

A motion was made by Larry - K6YUI, and seconded by Paul - W6GMU to adjourn. The meeting officially ended at 8:55 AM.

Respectfully submitted by:  
Bob Eckweiler - AF6C  
acting for: *Kristine Jacob - KC6TOD*





# OCARC Cash Flow - YTD

1/1/2010 through 11/8/2010

11/8/2010

Page 18

Category Description	1/1/2010- 11/8/2010
<b>INFLOWS</b>	
ARRL Membership Income	39.00
Auction In	1,561.25
Badge Income	35.50
Donations - FD	834.00
Donations - W0MRC radio eqmt sales	100.00
Dues, Family	175.00
Dues, Membership	955.00
Interest	0.19
Opportunity Drawing -Monthly	1,029.00
Sale Of Equipment	130.00
<b>TOTAL INFLOWS</b>	<b>4,858.94</b>
<b>OUTFLOWS</b>	
ARRL Membership Expense	24.00
Auction Expense	12.48
Auction Payout	867.61
Awards and Plaques	115.26
Brochure Printing Expense	50.00
Donations - OC FAIR	50.00
Donations - Red Cross	250.00
Dues	20.00
Field Day Equipment	115.39
Field Day Food	871.94
Field Day Rental	242.85
Insurance Expense	320.00
Legal	20.00
Opportunity Drawing - Monthly	1,217.94
PO Box Rental	40.00
QSL Postage	43.09
Supplies	9.56
Web Site Hosting	143.88
<b>TOTAL OUTFLOWS</b>	<b>4,414.00</b>
<b>OVERALL TOTAL</b>	<b>444.94</b>



## Attention Members!!!

Do you know a fellow ham that would be interested in joining OCARC? Do you have a friend that is curious about ham radio and wants to learn more about our hobby? Why not invite him or her to one of our exciting monthly meetings?!?! The meetings are fun, informative and entertaining. And don't forget about the raffle prizes too. So bring a visitor to one of our meetings, and help **your** club expand!

Make sure to inform your friends of our club's website, which is always kept up to date. Information on club meetings, activities and our newsletter archive make it a worthwhile site to surf!

<http://www.w6ze.org>

### 2010 ARRL CONTEST SCHEDULE

November	20 - 23	ARRL November Sweepstakes (Phone)
December	3 - 6	ARRL 160 Meter Contest
	11 - 13	ARRL 10 Meter Contest
	19	Rookie Roundup

The Desert Rats and the Palm Springs DX Club  
invite you to attend the 2nd annual \* \* \* \$1 admission with raffle ticket.

## HAMFEST - RAFFLE - WINTER FIELD DAY

Bring your ham gear to sell, no fee charged for selling if you bring own table and chairs. Maybe you only have one or 2 items for sale put it on our single items table with a sign and tell us your reserve price... (for a small commission to the club) ...we'll handle the sale.

Saturday,  
January 29  
9:30 A.M. to  
4:30 P.M.

**CHECK OUT OUR  
WEBSITE!**

<http://www.desertrats.am>



# HAMFEST!



### Winter Field Day 2011 Special Event Station

Email us for more info:  
Peter Reinzuch VE7REZ~President of 'the Desert RATS' Club  
[ve7rez@desertrats.am](mailto:ve7rez@desertrats.am)  
Evan DeRouen KI6WNF - EC Riverside County ARES  
[riversidecountyares@gmail.com](mailto:riversidecountyares@gmail.com)  
~Check ze Tweets @hamradio @RivCoARES

**Admission only \$1 includes 1 free raffle ticket!**

Talk-in frequency:  
146.940- PL 107.2  
WD6RAT Desert RATpeater  
Daily Nets Thursday thru Sat.  
8 A.M. - Noon - 6 P.M.

#### Directions:

Take I-10 to Palm Drive Exit.  
Turn onto Gene Autry Trail  
(becomes Matthew Dr. as it  
crosses Hwy. 111)  
Follow the RAT...  
4193 Matthew Dr. is on left

Lots of vendors and exhibits! Check  
website for the most up to date list.

ICOM YAESU

Buds Engraving Alpine Antennas

Byonics Old Military Radios

EDS Emergency Pack

Ham Radio Outlet

Impulse Electronics

ARRL  
DX  
Store  
W5YI  
RF Stuff



Clint Bradford and Gordon West

Event Coordinators Gary Boskovich KD6QLT and Susie Boskovich KD6QVO 760-328-9662 [sboskovich@dc.rr.com](mailto:sboskovich@dc.rr.com)

Nearby Hotel: Holiday Inn, corner of Sunrise & E. Palm Canyon, Palm Springs 760-323-1711 call for best room rate.

RSVP: RV Dry Camping reservations for vendors: [sboskovich@dc.rr.com](mailto:sboskovich@dc.rr.com) Vendor Set-up time 7:00-9:00 AM



## ***Just for fun***



*She would definitely have been a Ham!*



---

ORANGE COUNTY AMATEUR RADIO CLUB, INC  
P.O. BOX 3454  
TUSTIN, CA 92781-3454

***First Class Mail***

***Time Dated Material.  
Please Expedite!!***