

ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. LIX NO. 04

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

April 2018

The Prez Sez.....



The big news

Planning for our Field Day has made great strides since last month. We now have the Walter Knott Education Center site confirmed for that weekend. A week ago we had 15 members show up for our first Field Day planning meeting. Chairman Ron W6WG ran the meeting efficiently, and we are starting to put some of the details in place. With the addition of some of the ABCD group members, like Chip K7JA, Dino KX6D, Bob AA6PW and Steve N1BKB, it looks like we have enough operators to man a 7A Class Field Day. We are thankful to Dino for bringing his impressive tower trailer that puts 5 bands of antennas way up in the sky. We just heard from Joe Walsh's (WB6ACU's) agent, and he has promised to do an unplugged concert for

us as we tear down our equipment at 11AM Field Day Sunday. (OK this is an April Fool, but I can dream, can't I?)

The Winter Field Day Association did a much quicker processing of the logs this year. Last year we didn't get the results until late June. This year they were posted March 19th! It had great news for us! We finished 5th overall out of 620 logs, and 4th in our Outside Class. Thanks again to Ron and the WFD ops for a great job!

Fingers were crossed and the March meeting's program via Skype featuring Tim Duffy K3LR as speaker came off without a hitch. This was the first time OCARC had used Skype for a presentation, and this technology will enable us to bring more world class speakers in the future. Kudos to Vice President Dan K16X for pulling this off.

I am looking forward to seeing the April program on NVIS antennas by Cliff Guice – KG6MIG. It is a topic I don't know much about, and would like to know if it would be useful in getting a signal out of canyon areas like Devil's Postpile Nat'l Park for Parks On The Air.

Tim Goeppinger N6GP

President

Next General Meeting

The April 2018 OCARC
General Meeting program will be
presented by:
Cliff Guice, KG6MIG
His topic will be
"Near Vertical Incidence
Skywave – NVIS"

The next General Meeting will be on:

Friday, *April 20th, 2018 @ 7:00 PM

ENTER from the WEST SIDE entrance of the Red Cross Building, Room 208 Take elevator to the 2nd Floor. See you there! *Revised

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Orange County Amateur Radio Club

Orange County
Amateur Radio Club
www.W6ZE.org



2018 Board of Directors:

President:

Tim Goeppinger N6GP (714) 730-0395 N6GP@w6ze.org

Vice President:

Dan Violette KI6X@w6ze.org

Secretary:

Jim Schultz AF6N (714) 544-5435 **AF6N@w6ze.org**

Treasurer:

Ken Konechy, W6HHC (714) 348-1636 W6HHC@w6ze.org

Membership:

Bob Eckweiler AF6C (714) 639-5074 **AF6C@w6ze.org**

Activities:

Ron Mudry W6WG (714) 840-3613 **W6WG@w6ze.org**

Publicity:

Tim Millard, N6TMT (714) 744-8909 n6tmt@w6ze.org

Technical:

Kenan Reilly KR6J (714) 277-8798 KR6J@w6ze.org

Directors-At-Large:

Clem Brzoznowski, WØMEC (714) 927-4065 W0MEC@w6ze.org

Corey Miller KE6YHX (714) 639-5475 KE6YHX@w6ze.org

2018 Club Appointments:

W6ZE Club License Trustee:

Bob Eckweiler, AF6C (714) 639-5074 af6c@w6ze.org

Club Historian(s)

Corey Miller KE6YHX (714) 639-5475 KE6YHX@w6ze.org

Bob Evans, WB6IXN (Emeritus) (714) 543-9111 WB6IXN@w6ze.org

RF Editor – Rotating April:

Jim Schultz, AF6N (714) 544-5435 AF6N@W6ZE.org

Webmaster:

Ken Konechy W6HHC (714) 348-1636 W6HHC@w6ze.org

Assistant Webmaster:

Bob Eckweiler, AF6C (714) 639-5074 AF6C@w6ze.org

Tim Millard, N6TMT (714) 744-8909 N6TMT@w6ze.org

ARRL Awards Appointees:

Arnie Shatz, N6HC (714) 573-2965 n6hc@aol.com

John Schroeder, N6QQ (West Orange Co.) (562) 404-1112 n6qq@msn.com

Contact the Newsletter:

Feedback & Corrections: rf feedback@w6ze.org

www.W6ZE.org

Submit articles:

editors@w6ze.org

Monthly Events:

General Meeting:

Third Friday of the month at 7:00 PM held at: American Red Cross 600 Parkcenter Drive Santa Ana, CA (Near Tustin Ave. & 4th St.)

Club Breakfast (Board Mtg):

Normally First Saturday of month at 8am Marie Callender's Restaurant 1821 North Grand Ave Santa Ana, CA (Between 17th & Santa Clara)

Club Nets (Listen for W6ZE):

28.375 ± MHz SSB Wed- 7:30 PM - 8:30 PM Bob AF6C, Net Control Alt: Corey, KE6YHX, Net Control

146.55 MHz Simplex FM Wed- 8:30 PM - 9:30 PM Corey, KE6YHX, Net Control

7.086 ± MHz CW **OCWN** Sun- 9:00 AM – 10 AM Ann K6OIO, Net Control



Club Dues for 2018:

Regular Members renewals*- - - \$30 Family renewal/Join**- - - - - - \$45 New Member Join Jan-Feb*** - -\$30 Replacement Badge**** - - - - - \$ 3

- * Member renewals Jan-Dec.
- ** Two members or more, w/badge.
- *** New members Jan-Mar, w/badge.
- **** There is a \$1.50 charge if you'd like to have your badge mailed to you.



Field Day 2018

Believe it or not, it's **time to start planning** for OCARC's participation in the "event of the year", the 2018 ARRL Field Day. OCARC will mark its 85th Anniversary in 2018. What better way to celebrate this milestone than to make a statement with our skills and organization and to have another outstanding Field Day performance.

Field Day is a great time to really get to know your fellow OCARC members and learn from their knowledge and experience. It's also a good time to pass on to others what you know about amateur radio and emergency preparedness. The increased comradery and exchange of ideas will strengthen our club and help it last another 85 years.

Our first planning meeting was held Wednesday April 4th, 2018. The location of the meeting was Tim, N6GP's, home located at 18122 Estes Way, Santa Ana. The meeting agenda focused on assigning Band Captains and equipment availability. The date of the next meeting is to be determined.

As in the past the Band Captains will be responsible for the organization of their particular operating station, its operators and equipment. There are still support and operators positions open to fill and each one contributes to the success of OCARC. Hope to see there.

Submitted by,

Ron, W6WG, 2018 Field Day Chairman



Radio~Activity Opportunities

Dates and Activities well worth considering...

APRIL

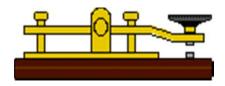
- ARRL Rookie Roundup SSB: Sunday April 15, 1800 UTC through 2359 UTC.
- 10-10 International Spring Contest/Digital: 0001 UTC Saturday April 28 through 2359 UTC Sunday April 29

MAY

- 10-10 International Spring Contest/CW: 0001 UTC Saturday May 5 through 2359 UTC Sunday May 6
- FISTS Spring Unlimited Sprint: 1700 UTC through 2100 UTC Sunday May 12
- *CQ World Wide WPX Contest/CW: 0000 UTC Saturday May 26 through 2359 UTC Sunday May 27

JUNE

• **2018 Field Day:** Setup begins 9am Friday June 22nd - Operations from 1800 UTC Saturday June 23rd through 2059 UTC Sunday June 24th.



^{*} Indicates club entries are accepted

Note: When submitting logs for ARRL Contests indicate your club affiliation as "Orange County ARC"

Continuing Activity:

ARRL International Grid Chase
 January 1, 2018 through December 2018

Repeating Activities:

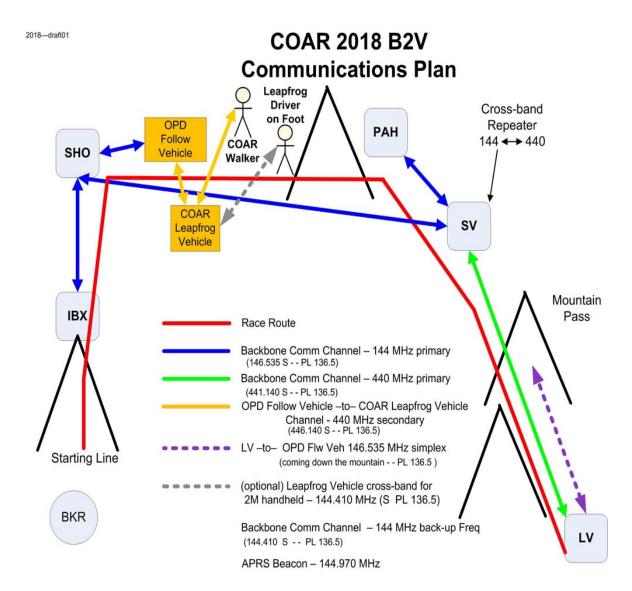
- Phone Fry Every Tuesday night at 0230Z to 0300Z
- **SKCC** Weekend Sprintathon (Straight Key CW) on the first weekend of the month after the 6TH of the month. 1200 Sat. to 2359Z Sunday.
- **SKCC** Sprint (Straight Key CW) 0000Z to 0200Z on the 4th Tuesday night (USA) of the month.

To have your favorite activity included in next months *Radio~Activity* column send an email to *Ron W6WG*, w6wg@w6ze.org

^{**} Indicates team entries are accepted

Orange PD RACES assist the OPD Runners with Communications in Baker-2-Vegas Race by Ken W6HHC

Each year, over 275 different law enforcement teams compete in a 120 mile long relay-race through the desert between Baker-Shoshone-Pahrump-Las Vegas. The **City-of-Orange RACES** assisted the Orange PD running team by providing five communications centers set-up by COAR RACES and mobile operators. The OPD running team finished with their best-time-ever, 15 hours and 35 minutes. OPD finished 43rd out of 275 running teams and third in their class (PDs with 150 or less sworn officers).



This is the communications plan used by COAR RACES over the 120 mile B2V race course.



Four members of OCARC manned the Pahrump Communications Center (L-R: Nicholas AF6CF, Tom W6ETC, Bob AF6C, and Ken W6HHC)



Tom W6ETC brought along his HF **GO-BOX loaded with batteries to test NVIS** and work some HF



Nicholas AF6CF tries out the HF GO-BOX and we made some contacts in southern US



Bob AF6C mans the Pahrump Comm. Center talking to other COAR Comm. Centers and the COAR follow vehicle.

Then the clock struck Midnight, Bob AF6C put on his St. Patrick hat to celebrate March 17.





This is the vertical antenna set up in Pahrump used for voice communications on 144 MHz and 440 MHz



The OPD runner Officer Daniels Tennant ran past the Pahrump Comm. Center during Race Leg #11





April 20th, 2018 Cliff Guice, KG6MIG "Near Vertical Incidence Skywave – NVIS"

Cliff, KG6MIG, has been interested in NVIS for many years. He has collected historical and practical information and has studied and tried its use in various situations. Cliff also envisions additional uses such as use during the Baker to Vegas race.

May 18th, 2018 Marty Woll, N6VI "Troubleshooting for the Non-Techie Ham"

Marty, N6VI, is a prolific radio operator and is always willing to give presentations on many subjects at many events. In this talk he presents that with the ability to solve a radio problem on the fly is what distinguishes Hams from almost all other radio users and is an invaluable skill whether you're into Emcomm or DXpeditions. This talk gives nonengineers a practical, systematic approach.



June 15th, 2018 Chip Margelli, K7JA "Getting Ready for Field Day" (aka: Field Day Pep Talk from the Guru)

This is the week before Field Day so a chance to build the excitement and get some last-minute tips.

August 17th, 2018 Wayne, KH6WZ, a frequent CQ writer, a possible "Maker Fairs" presentation.

For the most current Upcoming event information go to the OCARC EVENTS website:

http://www.w6ze.org/Events.htm





Next Planning Meeting
To be determined

Field Day

Volunteers as of -4/4/18

Captains

80m/15m SSB & CW TIM N6GP 10m/40m SSB CHIP K7JA 10m/40m CW KENAN KR6J
20m SSB RON W6WG 20m CW JIM AF6N VHF ROBBIE KB6CJZ
Satellite GREG W6ATB GOTA TIM N6TMT

Coordinators

Power AF6C Computers TIM N6GP, VIJAY KM6IZO Site TIM N6GP

Food TIM N6TMT Transportation STEVE KK6REB

Bonus Points

Media Publicity TIM N6TMT

Message to Sec Manager TIM N6GP

Satellite QSO GREG W6ATB

W1AW Bulletin CHIP K7JA

Web Submission TIM N6GP

Site Visit by Agency N/A

Web Submission TIM N6GP

Social Media Kristin K6PEQ

Public Information TIM N6GP

Message Handling TIM N6GP

Alt. Power

Educational Activity CLEM W0MEC

Site Visit by Agency N/A

Youth Participation JESSIE KB6MQY

Safety Officer N/A

Operators

VOLUNTEER OPERATORS TO DATE --- Chip K7JA, Bob AA6PW, Tim N6GP, Jim AF6N, Greg W6ATB, Kenan KR6J, Robbie KB6CKZ, Ken W6HHC, Bob AF6C, Paul W6GMU, Vijay KM6IZO, Doug K6PGH, Ron W6WG, Don K0VNJ, Terrance AI6ZV, Steve K1BKB, Dan KI6X, Corey KE6YHX, Rodger AI6WV, Ken WBPYCI

ADDITIONAL OPERATORS WELCOME				
Support				
Gene KJ6OML, Bryan K6AJY, Jessie KB6MQV, Clem W0MEC				
ADDITIONAL SUPPORT WELCOME				

Equipment

Radios

IC-7000 Tim N6GP, IC-718 Doug K6PGH, FT dx1200 Jim AF6N, IC-746Pro Ron W6WG

Antennas

Tim N6GP – 40m 2EL Vee Beam, 15m Moxon, 6m Moxon, 2m 3EL Beam, 220m 5EL Beam, 440m 6EL Beam, 20m end fed Dipole

Steve N1BKB – ZS6BKW (80-6m Wire), 8/40m Fan Dipole

Chip K7JA - 40m 2EL Yagi (Phone), 80m Horiz Dipole, 20m 3EL Yagi (ultra light), 10m 3EL Yagi, 6m 7EL

Yagi, 6m 3EL Yagi, Sat antennas if needed

Chip K7JA & Dino KX6D - 40m Dipole,

Dino KX6D -- Tribander

Jim AF6N – 20m Moxon

Greg W6ATB - 15/20m Vertical, 40m Dipole, Satellite X,Y VHF Yagi, Omni VHF/UHF

Ron W6WG - 20M Beam, 40m Wire Yagi, 10/15/20 Hexbeam, 80m Dipole

Club - 20m Beam

Towers/Masts

Chip K7JA - 31' Tubular Tower, 120' Military

Mast w/rocket launchers, ?' Tower

Club --50' Tower #1, 50' Tower #2,00' Tower,

Military Mast

Ron W6WG - 30' Telescopic Mast- Ron W6WG

Dino KX6D -- Tower Trailer

Shelters

Club -- Tent

Greg W6ATB – Tent

Jim AF6N -- 10x10 Popup

Chip K7JA – Popup

Computers (Windows 7 and above)

Laptops – Jim AF6N, Dan KI6X, Vijay KM6IZO

Power

Club -- 5KW Generator

Chip K7JA -- 2KW Generator

Club -- Kilowatt Battery



OOPS! WE EXCEEDED OUR FIELD DAY BUDGET

CONGRATULATIONS W6ZE - FOURTH PLACE OVERALL WINTER FIELD DAY **Analysis for W6ZE**

Call	W6ZE	Power Multiplier	2
Category	40	Bonus	6000
Section	ORG	Score Claimed	33336
Phone	544	Score Calculated	30569
CW	59		
Digital	71		

Log Checking Results:

PH

364 Orphan PH Contacts (No deductions)

9 NIL (Not In Log) PH contacts

26 Busted Contacts PH (Exchange doesn't match)

148 Good Contacts PH

PH QSO Total = 555

Total Deductions PH = 43

CW

36 Orphan CW Contacts (No deductions)

5 NIL (Not In Log) CW contacts

4 Busted Contact CW (Exchange doesn't match)

14 Good Contact CW

CW QSO Total = 60

Total Deductions CW = 10

DIG

45 Orphan DI Contacts (No deductions)

2 NIL (Not In Log) DI contacts

7 Busted Contact DI (Exchange doesn't match)

18 Good Contact DI

DIQSOTotal = 74

Total Deductions DI = 11

Busted Contacts Adjustment = - 53

PH $(544 - 35) \times 1 = 509$ CW (59 - 9) X 2 = 100**DIG** (71 - 9) X 2 = 124 Total QSO PTS = 733 Heathkit of the Month #84: by Bob Eckweiler, AF6C



KIT RESTORATION:

Heathkit V-6 VTVM Restoration Part I "Siliconizing" the V-6 Selenium Rectifier (Heathkit part # 57-1, Sarkes Tarzian Model 35)

Introduction:

I didn't think I'd have a Heathkit article this month. However, while awaiting parts to arrive I decided to see if I could convert the #57-1 selenium rectifier to silicon (See figure 1) in the V-6 VTVM under restoration. It presented a bit of a challenge and one I was happy to undertake slowly, whenever I needed a break from the less exciting task of doing taxes. Now, all the parts I believe I need have arrived save one (one vendor sent me the wrong part and is resending a correct one).

Currently the rebuild of the V-6 is coming along slowly, mostly due to the lack of parts and a lot of other obligations. However, the preliminary wiring of the chassis assembly is finished, and the assembly and wiring of the front panel is in progress. Still to do, before mating the two, is the teardown, cleaning and lubrication of the function switch, and the cleaning and lubrication of the the range switch. The precision resistors remain attached to the range switch since they are hard to replace and delicate. One resistor is open, but a replacement is finally on hand. After that, assembly can be completed and testing and calibration can begin.

Here is a link to the index of Heathkit of the Month (HotM) articles:

http://www.w6ze.org/Heathkit/Heathkit_Index.html

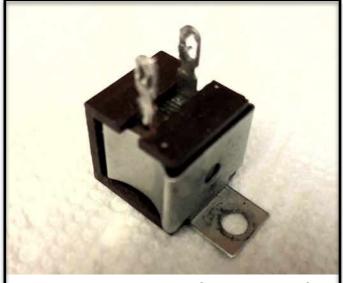


Figure 1: Heathkit #57-1 Selenium Rectifier. (Sarkes Tarzian Model 35)

The Selenium Rectifier:

The power supply in the early Heathkit VTVMs uses different forms of rectification as the models progress. The V-1 and V-2 use a 6X5 dual diode vacuum tube. The V-3 is battery powered (though whether any were sold is in question). The V-4(A)* uses a selenium rectifier (part # V97) which is a green commercial multi-plate rectifier similar to the one shown in figure 2. The V-5(A), and V-6 use a small Sarkes Tarzian Model 35 selenium rectifier (Heathkit part # V123, renumbered 57-1 in their revamped parts numbering system). Finally Heathkit settled on a sealed, small and inexpensive selenium rectifier in the V-7(A) (part # 57-13), also manufactured by Sarkes-Tarzian (Model 50); it is rated for 130 vac and 50 ma. In 1963 it sold in single quantities for 48¢; likely, significantly less at Heathkit quantities.

* **Note:** When a Heathkit model number is shown with one or more letters after it in parentheses it refers to multiple kits. Thus:

V-4(A) refers to V-4 and V-4A.

HP-23(A)(B)(C) refers to HP-23, HP-23A HP-23B **and** HP-23C



Figure 2: Selenium rectifier similar to the Heathkit V97 rectifier.

Selenium rectifiers tend to deteriorate over time according to many sources. And though I've never had a failure nor felt the need to replace one of the later sealed #57-13 rectifiers, the unsealed #57-1 worried me. The simple solution is to remove the rectifier, mount a Cinch 810 terminal strip in the hole where the rectifier mounted, and solder a 1N4004 diode across the two terminals of the terminal strip. However, this reduces the authenticity of the restoration. It would be better to convert the selenium rectifier to silicon, and keep its form factor.

An examination of the 57-1 rectifier shows it is held together with a spring clip and easily disassembled into a phenolic housing, two phenolic end plates, two terminal end plates and a stack of selenium-coated plates (figure 3).

The selenium plates were wrapped and discarded as toxic waste. Selenium, in excess, is toxic so wash your hands well when you are done. Next, the two metal terminal end pieces were cleaned and a small hole drilled in the center of the large rectangular section of each plate. (a #55 drill - 0.052" dia. was used). The area around the holes were tinned on one side, The leads of a 1N4004 diode we're also tinned. The cathode end of the diode was then soldered through the hole in one terminal end plate (tinned side towards the diode cathode), and the lead trimmed flush to the plate. This cathode terminal should be marked as such with a felt-tip marker.

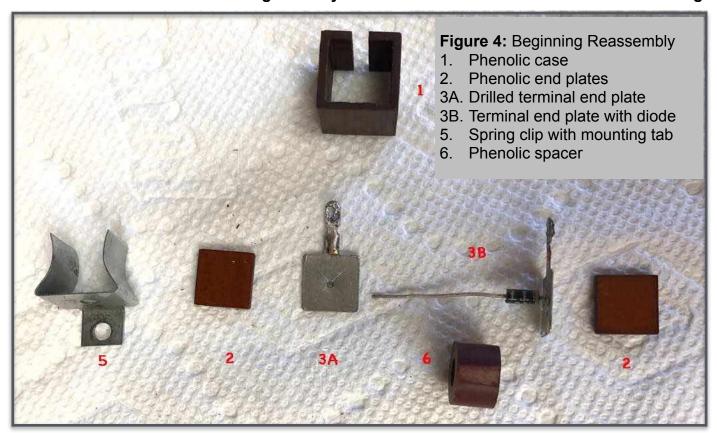
A 1/2" diameter phenolic spacer, about 0.325" in length, was found in the junk box It just barely wouldn't slip into the phenolic case until four flats were ground 90° apart around the spacer. One phenolic end plate and the terminal end plate with the diode attached



Figure 3: The disassembled 57-1 Rectifier.

- 1. Phenolic case
- 3. Terminal End plates
- 2. Phenolic end plates
- 4. Selenium coated plates

Not shown - Spring clamp with mounting tab (#5 in figure 4)



were slid into the phenolic case. The spacer was then slid over the diode and the second terminal end plate was pressed flush to the phenolic spacer and soldered. If the diode lead was already tinned along with the side

of the terminal end plate that is towards the diode, the solder should be drawn into the hole with little solder remaining on the outer side. This diode lead is then also cut off flush to the terminal end plate. Finally the second phenolic end plate is placed above the top terminal plate and the whole assembly is



Figure 5: Partial Reassembly.

- 3A. Drilled terminal end plate.
- 5. Spring clip with mounting tab
- 7. Assembly of:
 - a. A phenolic end plate
 - b. A end terminal plate with diode soldered on
 - c. Phenolic case
 - d Phenolic spacer

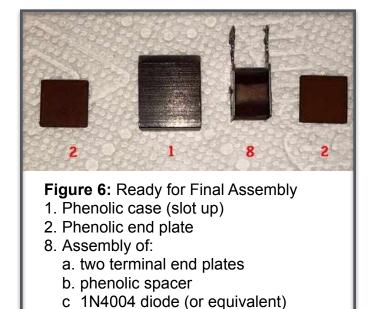




Figure 7: Completed Selenium Rectifier Converted to Silicon with Cathode Marked

Prior to installation in the V-6, the 'K' was cleaned off with alcohol, but the red marking on the cathode terminal stem was left on.

placed into the spring clip with mounting tab. This has to be assembled so the cathode terminal end, with its lug pointing up, is towards you when the mounting clip is pointed to the right (See figures 4, 5, 6 and 7).

The result is a silicon 1N4004 rectifier diode mounted inside the case of the #57-1 selenium rectifier case. This diode should outlast the V-6 VTVM.

Comments:

Usually I try to write about an unusual kit for the April issue. There was the Heathkit mahogany candlestick (my favorite), the Heathkit "freebee" flashlight. Once I even published a writeup of an imaginary kit, the Heathkit C-7 Lakota. Needless to say the author was a historian of General Custer. Other unusual Heathkits that were covered in the April issues are a log splitter, a garbage compactor, a \$6,000+ 15 lb. 386 based laptop computer, and a motorbike. I hope this article is esoteric enough to fit in.

Ten Year Anniversary:

Can you believe that it was ten years ago this past February that the first Heathkit of the

Month article appeared in the Orange County Amateur Radio Club newsletter RF! In those ten years there have been 84 feature articles including this one, and a few short articles. That amounts to over eight articles each year. No, it's not exactly accurate to call the series *Heathkit of the Month*, but's close enough that I don't have any guilt feelings. That first article covered the GR-121 Clock Radio that followed me through my college days.

The New Heathkit:

It's been some time since the new Heathkit started operations. The current kits they offer are a TRF AM Radio (in soldered and solder-less versions), a Stealth 2m/0.75m antenna, a Digital Clock, and a Precision RF meter (for which Heath is currently accepting preorders). They also have some neat accessories, updates and replacement parts for various legacy Heathkits such as the AJ-1510(A) tuner, the HG10(B) VFO, the IG-18 audio generator, and some replacement parts for the weather stations. You might want to checkout their website at:

www.heathkit.com

Their GC-1006 "Most Reliable Clock" sells for \$99.95 which some feel is expensive for a digital clock. However, in 1990 dollars that is \$52. Hopefully the new Heathkit will release some ham related kits that will draw the new generation of hams back into kit building.

73, **from** AF6C



This article is Copyright 2018 R. Eckweiler, AF6C and The OCARC Inc.

Remember, if you are getting rid of any old Heathkit Manuals or Catalogs, please pass them along to me for my research.

Thanks - AF6C

OCARC BOARD MEETING MINUTES April 7th, 2018

The April OCARC Board meeting was held at the Marie Callender's Restaurant at 1821 N. Grand Ave in Santa Ana on April 4, 2018. Meeting called to Order at 8:04 am.

Roll Call:

President: Tim N6GP, Present Vice President: Dan Kl6X, Present Secretary: Jim AF6N, Present Membership: Bob AF6C, Present

Technical: Kenan KR6J, Absent Treasurer: Ken W6HHC. Present Activities: Ron W6WG, Present

Publicity: Tim, N6TMT, Present

Directors at Large:

Corey KE6YHX, Present Clem W0MEC, Present

Guests and Members attending:

Greg Etter, KG6PTL

DIRECTOR REPORTS:

Vice President No current report.

Secretary: Jim AF6N delivered mail including three checks and a Post Office renewal form.

The renewal form was assigned to the Secretary to complete. A discussion regarding advisability of establishing a Post Office on-line account followed and was turned down.

Jim AF6N reported receiving approval and help from Tim Duffy to include photos from K3LR in these minutes.

Treasurer: Ken W6HHC passed out the current Cash Flow Summary and reported good renewal response. He also explained that the \$20 Credit Union fee was for January and February and would now cease.

A check from Jim AF6N was returned and written off contingent upon location of a missing check.

Activities: Ron W6WG reported a current surplus of \$95 dollars in the Opportunity Drawing funds. And, we still have one Bioenno battery for a future drawing.

Bob AF6C was the March battery winner.

Directors at Large: No current reports

OLD BUSINESS:

NEWSLETTER EDITORS: Tim N6GP listed the

Editors schedule:

April – Jim AF6N, May - Tim N6GP.

Dan KI6X volunteered for the June newsletter.

PROGRAMS: Dan KI6X reported as follows:

April – Cliff Guice KG6MIG will present on "NVIS".

May - Marty Woll N6VI will present on "Troubleshooting for the Non-engineer".

June - Chip K7JA will offer his annual Field Day Prep and Pep Talk

July - A combination of half hour talks is planned including representatives from both ARES and RACES.

August - Wayne KH6WZ, a frequent CQ writer, a possible "Maker Fairs" presenta-

September - OCARC Anniversary Meeting

October - Annual Club Auction

November – TBD

December – Christmas Dinner

HISTORIAN: - Corey KE6YHX is submitting a second disc to the Santa Ana Library. Access to the Library reports will be suspended until further notice. He will be inputting prior rosters into the Archive data base.

Bob AF6C will resume scanning rosters.

85th ANNIVERSARY:

Tim N6GP suggested a "Save the Date" letter be sent to guests for travel planning. Secretary, Jim AF6N was designated to make the mailing. The Publicity Director was suggested for noticing in QST, OC Register and to Carl WU6D and ARRL directors.

Tim N6GP suggested organizing a mobile vehicle show to precede the anniversary meeting. All present were in agreement. Several mobile units were suggested such as W6ETC, N6NB, NI6E, KE6YHX, K6JA, and KR6J.

Anniversary Polo Shirts: Ron W6WG wore a sample "I initial" embroidered polo shirt and showed a sample jacket. "I initial" carries quite a varied selection of garments and also offers to embroider the club logo, members name, and call on a member supplied garment. The price for embroidery is \$10 regardless of the substrate. Delivery time is approximately two weeks.

Due to the many variable choices offered, Ron and "I initial" both recommend members deal direct with "I initial"

Ron has included an advertisement page on page 19 of this RF Newsletter.

Anniversary Coffee Mugs: Jim AF6N showed a mug from Personalization Mall that was accepted by the board. The mug will show our anniversary logo printed on one side and the members name and call on the opposite side. The mug would be offered to members at a price of \$14 each.

An order form is included below on Page 20. Payment will be accepted by mail or in person at a General Meeting. Submit your order by the end of the July meeting to take delivery at the Anniversary Meeting. AF6N will handle ordering through Personalization Mall.

Tim N6GP offered Orange County Mugs (714) 949-3623 as a possible local backup source.

Lifetime Achievement Award: A selection committee was named to include the club president and vice president. Historian, Corey KE6YHX has prepared several pages of research for the committee's use. He also offered several names for prospective recipients.

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Bob AF6C reported that Bob WB6IXN is in good health but that his brother Lee is experiencing health difficulties.

Field Day Report: Ron W6WG reported that the April 4 planning meeting went very well. The Walter Knott site has been accepted. Some coordination may be needed with the Fire Station Open House group.

A discussion of equipment available (much of it from Chip K7JA) followed. Dino KX6D will lend his trailer tower and tri-bander. Dino will be present to erect and remove his tower but will not be available to operate on Saturday. All bands are expected to be operating.

Ron W6WG will prepare an AutoCad site plan showing antenna and power placement.

NEW BUSINESS:

Ken W6HHC suggested that the club secretary be designated as a third backup person for broadcast emails in case of absences. Accepted.

Bob AF6C reported the designated Emergency Communicator position is out of date. Possible candidates for updating the position offered were Tom W6ETC and Fran KJ6UJS.

GOOD OF THE CLUB:

Tim N6GP volunteered to write a thank you to Rick W6EMZ for his book donation.

Tim N6GP noted that a beta test of the FT8 DX mode took place early April 4.

The meeting adjourned at 9:30 am.

Submitted by *Jim Schultz, AF6N OCARC Secretary*



2018 is OCAR C's 85th Anniversary

Customized Embroidering of the OCAR C Logo,

Your Name and Callsign can placed on shirts, jackets, hats, bags, and just about anything you want.



You can either purchase the item from I.Initial or bring in whatever you have and have it embroidered for \$10.00.

They have the OCAR C logo artwork on file. Delivery takes one to two weeks.

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Phone # (714) 573-2552 Online at "iinitial.com"

Orange County Amateur Radio Club 85th Anniversary Coffee Mug



Celebrate 85 Years of OCARC with Your Cup of Morning Joe

Order Form	Call Sign		Quantity
	Name Desired		
	Call Sign		Quantity
	Name Desired		
Please make & ma	nil check to:	Price Each	\$14.00
PO Box 3454 Tustin, CA 92781		Total	
or Bring check to	next meeting		

OCARC GENERAL MEETING MINUTES March 23rd, 2018

The OCARC General meeting was held at the Santa Ana Red Cross Complex on March 23, 2018.

Club Officers:

There was a quorum. All officers were present with the exception of Ken W6HHC and Kenan KR6J.

Attendance:

Present were 24 members, 3 guests, and our guest speaker via SKYPE from Pennsylvania..

The meeting was called to order at 6:58 pm and was followed by the Pledge of Allegiance to the Flag and introductions of the members and guests.

March Program:

Dan, KI6X introduced the evening's presenter, Tim Duffy, K3LR. Tim is Chief Operating Officer of DX Engineering and President of the Radio Club of America. He lives and operates K3LR from West Middlesex, PA and presented OCARC's first ever live SKYPE presentation.

Tim delivered a comprehensive slide program showing the amazing Multi-multi contest station that he has put together at K3LR. He showed and described the house built in 1865, the site, the antenna farm, and the operating equipment that has become K3LR.



CW Contesters – Bob, N6TV, left and David, N6AN right.

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The site includes too many individual antennas to list but does include 13 towers, the tallest of which tops out at 275ft and supports more than 10 yagis with a wind load of 138 sq-ft. Three full size 40m beams at 260ft, 190ft, and 120ft constitute the largest 40m array in the world. Also included on-site are two 4-square arrays for 80m and single 4-squares on 10m, 15m, and 20m.

The radio room is an addition to the 1865 house. The radio room measures 28ft by 28ft and seats 11 operating positions. The positions include ten Icom 7851's and one Icom 7850. Support equipment is far too numerous to attempt relating. The "DX Barn" sleeps eight and over the years has welcomed over 130 operators from all parts of the world. It also welcomes many visitors' tours throughout the year. All in all it was a fascinating presentation of the K3LR facility by Tim, K3LR.



K3LR Antenna farm - Center tower 275ft

OCARC thanks Tim and DX Engineering as well for offering such a fascinating evening. We recommend your visit to Tim's website at www.k3lr.com for a very interesting read.



Teamwork for another wall plaque by John, N2NC left and Phil, K3UA right.

Intermission was taken from 7:40 to 8:10 pm.

Business Meeting:

Director Reports:

Ron, W6WG announced the various Opportunity Drawing prizes available and Tim, N6GP thanked Rick, W6EMZ for his donation of the used books.

Tim, N6GP reported that the approval has yet to be received for use of the Walter Knott Field Day site. Approval is expected in the coming week.

Field Days:

Winter Field Day - Ron, W6WG reported that Winter FD results were very impressive with W6ZE placing 4th nationally out of some 600 submitted logs. Results were 544 PH, 59 CW, 71 DIG, and17 Multipliers. Tim, N6GP kept busy rounding up multipliers. Our total score was 30,369.

June Field Day – Ron, W6WG reported that planning is well underway. He has been emailing a listing of personnel and equipment that has been volunteered to date. He will continue that reporting to all interested. A signup sheet for emails was passed around.

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Walter Knott remains the first choice site and the Huntington Beach site is considered for a backup. Tim, N6TMT reported that the Boy Scout food service will be available provided that the Walter Knott site is used.

The first open planning meeting is scheduled for 6pm, April 4 hosted by N6GP.

Tim, N6GP showed a sample of the Anniversary Coffee Mug being considered. Jim, AF6N reported on the vendor search and the expected approximate \$14 price. Approximately 15 hands were raised to show interest in purchasing a mug at that price point.

Ask the Elmer:

Ron, W6WG reported success in uploading and down-loading logs to LOTW by removing his former call and leaving the home call blank.

Tim, N6GP reported that a suggestion and dummy load/wattmeter loan from Doug, K6JEY helped to ID coax faults for him. Energizing the dummy load with a hand held transmitter and wiggling the coax indicates intermittent faults in the meter.

Jim, AF6N reminded that CW operators are again needed for the upcoming Field Day.

Tim, N6TMT commented on difficulty receiving Clem, W0MEC on the 2 meter net. Clem explained that he has been running 2.8 watts from his KX3 to a slim Jim antenna. Chip, K7JA suggested a phased array of a 2 element yagi topped with a vertical to favor one direction while still maintaining some omnidirection.

Show and Tell:

None offered.

Announcements:

Dan, KI6X announced the April presenter will be Cliff Guice, KG6MIG speaking on "NVIS"

Following the Opportunity Drawing, the meeting Adjourned at 9:21 pm

Photos courtesy of K3LR.com

Submitted by *Jim Schultz, AF6N OCARC Secretary*

OCARC Cash Flow - Year To Date

1/1/2018 through 3/31/2018

Category	1/1/2018- 3/31/2018
INFLOWS	
Badge Income	2.00
Donation	10.00
Dues, Family (PayPal)	172.89
Dues, Membership	600.00
Dues, Membership (PayPal)	634.26
Opportunity Drawing -Monthly	46.00
Refreshments Income	23.83
TOTAL INFLOWS	1,488.98
OUTFLOWS	
CU service Fee	20.00
Opportunity Drawing - Monthly	114.57
Publicity - OCARC Biz Cards	18.29
Refreshments Expense	9.87
Storage Locker	246.00
Supplies	24.33
Web Site Hosting	50.97
TOTAL OUTFLOWS	484.03
OVERALL TOTAL	1,004.95