



RF



ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. LX NO. 03

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

March 2019

The Prez Sez.....

by Dan KI6X



I did get a little winded last month so will try to keep this one shorter! I want to start out with a reminder that we moved our APRIL meeting a week later. April will be a great talk about FT8 from those that use it (including from the DX side as a Fox). So, NEXT month note the change you will see in the notices and newsletters. This month is still the 3rd Friday, March 15 (soon).

We have started the Field Day planning in earnest and Walter Knott School is 99% booked for us. You will start hearing about FD at the March meeting. Tim, N6GP, has volunteered to lead the FD team. I want to add emphasis to TEAM. He has a couple persons already planning to help and more will be needed, as FD

gets closer. After determining participation level, then station count, then band captains need to be locked in. There are many areas of assistance that will be needed. Please volunteer to help Tim (N6GP).

If you were at the last meeting you know we unanimously voted to nominate Arnie Shatz, N6HC, to the CQ Magazine DX Hall of Fame. Other than all the obvious things Arnie has done for DX operating, he has had club presentations, answers DX/contesting questions, and is a serious FD operator, he is also our representative for checking QSL cards for CQ Magazine and the ARRL awards programs (DXCC, VUCC, WAS, etc.). See Arnie if you need to submit a package and have him check your cards so you do not have to mail them in. We are rooting for you Arnie.

Dan Violette, KI6X



Next General Meeting

The March 15th 2019 OCARC General Meeting program will be presented by:

William Phinizy (K6WHP)
Dave Martin (KD6QIY)

"Civil Air Patrol (CAP)"

Bill and Dave will present a talk on the mission of the Civil Air Patrol (CAP) and how amateur radio is used in their operations.

The next General Meeting will be on:

Friday, March 15, 2019

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

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Feedback & Corrections:
rf_feedback@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 2019:**

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

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

ARRL Launching New Podcast Geared Toward New Radio Amateurs

(Edited from ARRL.ORG website by KI6X)

For those just getting started on their Amateur Radio journey, ARRL is launching a new podcast aimed at answering your questions, providing support and encouragement for newcomers to get the most out of the hobby. The podcast “So Now What?” will launch on Thursday, March 7, and new episodes will be posted every other Thursday.

Co-hosting “So Now What?” will be ARRL Communications Content Producer Michelle Patnode, W3MVP, and ARRL Station Manager Joe Carcia, NJ1Q. Presented as a lively conversation, with Patnode representing newer hams and Carcia the veteran operators, the podcast will explore questions that newer hams may have and the issues that keep participants from staying active in the hobby. Some episodes will feature guests to answer questions on specific topic areas.

Topics to be discussed in the first several episodes include getting started, operating modes available to Technician licensees, VEC and licensing issues, sunspots and propagation, mobile operating, contesting, Amateur Radio in pop culture, and perceptions of Technician license holders.

Listeners will be able to find the “So Now What?” podcast on Apple iTunes, Blubrry, or Stitcher (free registration required, or browse the site as a guest) and through the free Stitcher app for iOS, Kindle, or Android devices...or wherever you get your podcasts. Episodes will also be archived on the ARRL website.

Greg Bohning, W6ATB
(714) 767-7617
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**OCARC Officer Position
of the Month**
Public Relations Officer

Note: This will be a monthly Newsletter feature highlighting an officer position, their duties and where you can assist.

Duties:

The OCARC By-laws list the following as duties of the **PR Officer**,

- Prior to each regular club meeting provide, with the assistants of his choice, adequate seating for the members.
- Welcome members and visitors to the meeting and answer any questions they may have about the club.
- Contact and get published in local newspapers as needed announcements of club activities such as Field Day.
- Perform other duties required by the president or the Board.

One of the best PR efforts we have had is flyers at Ham Radio Outlet along with our impressive website.

Current Officer:

Vijay Anand, KM6IZO (KM6IZO@W6ZE.ORG)

Areas that club members may assist the Officer: It would be very nice if there were someone that frequents HRO (monthly?) that can check on flyers and restock them as needed. In addition, the PR Officer may need assistance with contacting local newspapers or with other community PR contacts. Another possible project could be creating welcome packages for visitors. I am sure there are many other ideas that Vijay would like to hear about.



Upcoming Activities:

MARCH

- **Russian DX Contest:** 1200 UTC Saturday March 15 through 1200 UTC Sunday March 17
- ***CQ WW WPX / SSB:** 0000 UTC Saturday March 30 through 2359 UTC Sunday March 31

APRIL

- **Rookie Roundup:** Sunday April 21, 1800 UTC through 2359 UTC.
- **10-10 International Spring Contest/Digital:** 0001 UTC Saturday April 27 through 2359 UTC Sunday April 28

* Indicates club entries are accepted

** Indicates team entries are accepted

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

State QSO Parties

- **Oklahoma QSO Party:** 1500 UTC Saturday March 9 to 0200 UTC Sunday March 10 and 1400 UTC to 2100 UTC Sunday March 10
- **Idaho QSO Party:** 1900 UTC Saturday March 9 to 1900 UTC Sunday March 10
- **Wisconsin QSO Party:** 1800 UTC Sunday March 10 to 0100 UTC Monday March 11
- **Louisiana QSO Party:** 1200 UTC Saturday March 16 to 0200 UTC Sunday March 17
- **Georgia QSO Party:** 1800 UTC Sunday April 13 to 2359 UTC Monday April 14
- **Michigan QSO Party:** 1600 UTC Saturday April 20 to 0400 UTC April 21
- **Florida QSO Party:** 1600 UTC Saturday April 27 to 2159 UTC Sunday April 29

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.
- **CWops** Every Wednesday 1300 UTC to 1400 UTC 1900 UTC to 2000 UTC and Thursday 0300 UTC to 0400 UTC

Send an email to Ron W6WG, w6wg@w6ze.org to have your favorite activity or your recent Radio-Activity listed in next month's column.

UPCOMING EVENTS

MARCH 15TH, 2019

"THE CIVIL AIR PATROL (CAP)"

Our guest speakers will be Bill Phinizy – K6WHP and Dave Martin – KD6QIY

Bill and Dave will present a talk on the mission of the Civil air Patrol (CAP) and how amateur radio is used in their operations. Please read Bill Phiniz Ham autobiography on page 12.

APRIL 26TH, 2019

FT8 Contesting by Arnie N6HC and Chip K7JA

MAY 17TH, 2019

Baker-2-Vegas presentation by Ken W6HHC

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

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

COAR RACES plans Communication Support for the Orange Police 2019 B2V Running Team

by Ken W6HHC

Each spring, law-enforcement running teams (from around the world) have entered in a competitive foot-relay-race through the desert. This race, known as “Baker-to-Vegas” (and aka B2V), is a 120 mile long race, that starts outside Baker (CA), runs through the desert to Shoshone, then runs through Pahrump, NV and finishes at the Hilton Hotel in Las Vegas. This year there will be over 290 different running teams. The runners of the Orange Police Department have been supported for many years with communications by hams belonging to COAR (City of Orange Amateur Radio) RACES and OCARC members. This year, the B2V event is scheduled to begin on Saturday, March 23, with runners reaching the finish line on Sunday March 24. COAR is planning to set-up five Communications Centers along the race course, as well as providing communications and APRS in a “follow vehicle” for the Orange PD running team.



Many members of COAR RACES and other communications volunteers take a group photo during one of the Orange PD Baker-2-Vegas Communications planning meetings. There are nine OCARC members assisting COAR during B2V this year.

OCARC GENERAL MEETING MINUTES 2019-02-15

The OCARC General meeting was held at the Red Cross Complex in Santa Ana on February 15, 2019. We had 42 people attending, including 30 members, and 12 visitors/guests. There was a quorum of club officers present, with all in attendance except AF6C and AF6CF.

February Program:

VP Tim N6TMT introduced the speaker, Doug Millar - K6JEY presenting on

“EME (Earth-Moon-Earth) on 10 GHz...”

Doug explained that most 10 GHz EME QSO's are conducted using CW or Digital.



The “portable” EME 10 GHz set-up for Doug K6JEY

In addition to explaining the equipment needed to perform 10 GHz EME, Doug explained the many benefits of LNB's (Low Noise Block downconverter) useful on 10 GHz. By converting the 10 GHz signal to a lower frequency (aka downconverter) the signal going to the receiver is not only amplified but also can use less expensive transmission line. LNBs also allow lower frequency Spectrum Analyzers to inspect the 10 GHz signals....therefore cheaper Spectrum Analyzers.

Business Meeting:

• Winter Field Day

Ron W6WG reported on the great success of the OCARC WFD effort held in January. In 2018, OCARC achieved 46,000 points. In 2019,

OCARC scored 124,000 points in WFD.

The club officers also encouraged members to make donations to help defray the \$140 cost of renting and set-up for a large tent.

• Baker-to-Vegas Race

Ken W6HHC announced that the City of Orange RACES group is looking for additional hams who are interested in helping the Orange PD running team. The event will take place on Saturday Mar 23 and Sunday Mar 24.

• CQ-Magazine DX-Hall-Of-Fame

A motion was passed to nominate club member Arnie Shatz N6HC for the CQ-Magazine DX-Hall-Of-Fame.

Good of the Club:

• QATAR OSCAR-100

Ken W6HHC reported that the latest OSCAR satellite, the QATAR OSCAR-100 geostationary, was launched November 15 and became fully operation on February 15. OSCAR-100 covers Europe, Africa, and much of Asia with CW, SSB and DigitalATV “bent pipe” responder capabilities. Charles G4GUO reported to Ken the DATV QSOs on “every evening OSCAR-100 is very very busy”.

Submitted by Ken, W6HHC

OCARC Secretary



OCARC BOARD MEETING MINUTES 2019-03-02

The OCARC Board meeting was held at the Marie Calendar's Restaurant at 1821 N. Grand Ave in Santa Ana on Mar 2nd, 2019. There were a total of 10 members attending. There was a quorum with all Directors present.

Director Reports:

• Treasurer

Greg W6ATB reported that there was INCOME of \$1,465 YTD, mostly from dues.

• Secretary

Ken W6HHC reported that he had sent an OCARC nomination for member Arnie Shatz N6HC to the CQ-Magazine DX-Hall-Of-Fame.

• Membership

Corey KE6YHX reported that all 2018 members, except 31, had already renewed their club membership.

• Activities

Ron W6WG reported he will make reservations for the club Christmas Dinner at Mimi's Café for Friday, December 06..

Old Business:

• Newspaper Editors

Mar – Greg W6ATB Apr – Tom W6ETC
May – Bob AF6C June – Jim AF6N
July - ??

• Programs for Meetings

Mar – Civil Air Patrol by Bill K6WHP & Dave KD6QIY
Apr – FT8 Contesting by Arnie N6HC and Chip K7JA
May – Baker-2-Vegas presentation by Ken W6HHC
Sept – Ducie Island DX-expedition by Arnie N6HC

• Winter Field Day Software

Ron W6WG that the club had purchased a copy of the N3FJP software for WFD (\$9).

• Bylaws Update Committee

AF6CF, N6GP, and KE6YHX reported that good progress had been made on updating the three areas of the bylaws that are being worked on:

- 1) Improving/clarifying the position of Director-at-Large,
- 2) Revising the General Meeting agenda that is currently in the bylaws
- 3) Updating the FCC license requirements for a board member (currently says a 5-year license).

The committee will then review their recommendations to the full board of directors.

• Field Day 2019

- 1) Tim N6GP reported that the Walter Knott school field had been cleared for OCARC Field Day by the administrators and the soccer club. Next step is to turn in the insurance rider.
- 2) Tim N6TMT has ordered another box of "Exxon polyester rope".
- 3) The board agreed to NOT use a large tent for FD (too noisy).
- 4) The new base for one of the aluminum FD towers is scheduled for completion in May.
- 5) Tim N6GP volunteered to be the FD Chair for 2019. Ron W6WG volunteer to be Tim's "deputy assistant".

• PHP Software upgrade on Club Website

Bob AF6C reported that the club website has been successfully upgraded to PHP v7.2 and no problems were found.

Good of the Club:

• SoCal Edison disruption of Antenna Trees

Ken Bourne W6HK. Chief Radio Officer of OC RACES, was recently informed by SoCal Edison that they need to access the underground cables buried in his yard to make improvements to the electrical grid security. SCE may need to remove trees that support his G5RV antenna. Removing either tree would put W6HK off the air for running their Saturday 60-meter ACS nets.

Submitted by Ken, W6HHC
OCARC Secretary

OCARC DUES Reminder**To: OCARC Members**

To those that have already renewed for 2019, thank you. For the others, **DUES ARE DUE**. We allow a 3-month grace period to get dues in before you are removed from membership. The earlier the better to beat the last-minute rush at the meetings.

So, I ask a couple things:

1. You can pay via PayPal. You can always still pay at the meeting.
2. If you paid at a meeting already or plan to pay at a meeting, fill out the on-line membership form and put "paid/paying at meeting" in the box and bring a check/cash to the meeting (\$30 one person, additional persons in household are discounted).

Go to <http://www.w6ze.org> and on the left side is "Member Renewal" (as well as "How to Join" for the new members). Keep advertising the club to prospective members. I think this will be a fun year for everyone. You can also Click-on Uncle Sam Icon below and you will be directed to renewal page.

Dan Violette, KI6X
OCARC President



DECIBELS¹

True or false: $30 \text{ dBm} + 30 \text{ dBm} = 60 \text{ dBm}$?

Decibels are found everywhere, including power levels, voltages, reflection coefficients, noise figures, field strengths and more. %, dB, dBm and dB($\mu\text{V/m}$) are important concepts that every engineer or Ham should understand.

Engineers have to deal with numbers on an everyday basis, and some of these numbers can be very large or very small. In most cases, what is most important is the ratio of two quantities. For example, a mobile radio base station might transmit approx. 80 W of power (antenna gain included). The mobile phone receives only about 0.000 000 002 W, which is 0.000 000 0025 % of the transmitted power.

Whenever we must deal with large numerical ranges, it is convenient to use the logarithm of the numbers. For example, the base station in our example (above) transmits at +49 dBm while the mobile phone receives -57 dBm, producing a level difference of $+49 \text{ dBm} - (-57 \text{ dBm}) = 106 \text{ dB}$.

Another example: If we cascade two amplifiers with power gains of 12 and 16, respectively, we obtain a total gain of $12 \times 16 = 192$. In logarithmic terms, the two amplifiers have gains of 10.8 dB and 12 dB, respectively, producing a total gain of $22.8 \text{ dB} = (10.8 \text{ dB} + 12 \text{ dB})$, which is definitely easier to calculate.

When expressed in decibels, we can see that the values are a lot easier to manipulate. It is a lot easier to add and subtract decibel values in your head than it is to multiply or divide linear values. This is the main reason we like to make our computations in decibels.

Please email Greg W6ATB at W6ATB@w6ze.org for the complete Application Note 1MA98. A 36-page PDF document intended as a refresher on the subject of decibels. I will gladly email you this document on Decibels.

Greg Bohning, W6ATB

W6ATB@w6ze.org

¹ The information for this short article, taken from Application Note 1MA98, ROHDE & SCHWARZ GmbH & Co.

William Phinizy – K6WHP

I have been a ham off-and-on since 1960, previously licensed as WV6KJK, WN6EPZ, and in 1978 as KB6HK. I upgraded to extra Class in 1996 (20-wpm by the skin of my teeth) and got the current vanity call sign.

About the time I upgraded to Extra, I decided to do my code practice with actual CW Qs rather than copying PC-drone programs. My 6 year old informed me that 100 watts into an attic dipole was playing havoc with his viewing of Rug Rats so I turned the power down to an acceptable level and discovered one could work some surprising DX on 5 watts. It was at that juncture I entered the wonderful realm of QRP and, thanks to such gentlemen as Doug Hendricks, KI6DS, Jim Cates, WA6GER, (sadly a silent key), and the other wonderful folks in the QRP world, I learned not only low power operation but also the joy of building one's own radios. My accomplishments include several

OHR-100s, numerous SW-###s for the 20, 30, and 40 meter bands. Currently in the mix is a restored NorCal 40A for my outdoor hiking forays and I plan to build 1-Watters for 20 and 15 meters. I also built Elecraft K-2 #999 which is my main QRP rig and goes with me each Field Day to the Zuni Loop MEF effort.

I was also fortunate enough to have wonderful friends such as Bill Chambers, K6BNC, Dick Palmer, WB6JDH, Sam Imai, KF6ML, and others help get the small but energetic Lake Perris QRP Society, KR6LP, off the ground. While that organization may have faded into history, the love of QRP still remains.

I am now retired and spending considerable time on amateur radios either restoring old radios or building QRP rigs. Accordingly, I have cordoned off a section of the garage as a "clubhouse" serving as my shack and workbench. Gradually, decent test equipment (mostly of an earlier generation) has worked its way onto the bench and is put to good use. Prior to my retirement, in anticipation of a diminished budget, I also laid in a goodly selection of projects and radios to occupy my time. At the rate I am going, I figure this will take me well into the next century! Good thing QRP rigs are mostly small!

I served as the Squadron Commander of the Long Beach Senior Squadron 150 (PCR-CA-343) from 2011 to 2015 where and the bureaucratic requirements of that position conspired to thwart my ham radio frivolities. Having escaped that burden and not having learned much, I currently am the Director of Communications for Group 7 of the California Wing which serves to allow me to exercise my radio skills in benefit of the U. S. Air Force Auxiliary. My efforts in that regard are periodically chronicled on my blog: righthandofzod.blogspot.com.

MiniTiouner-Express

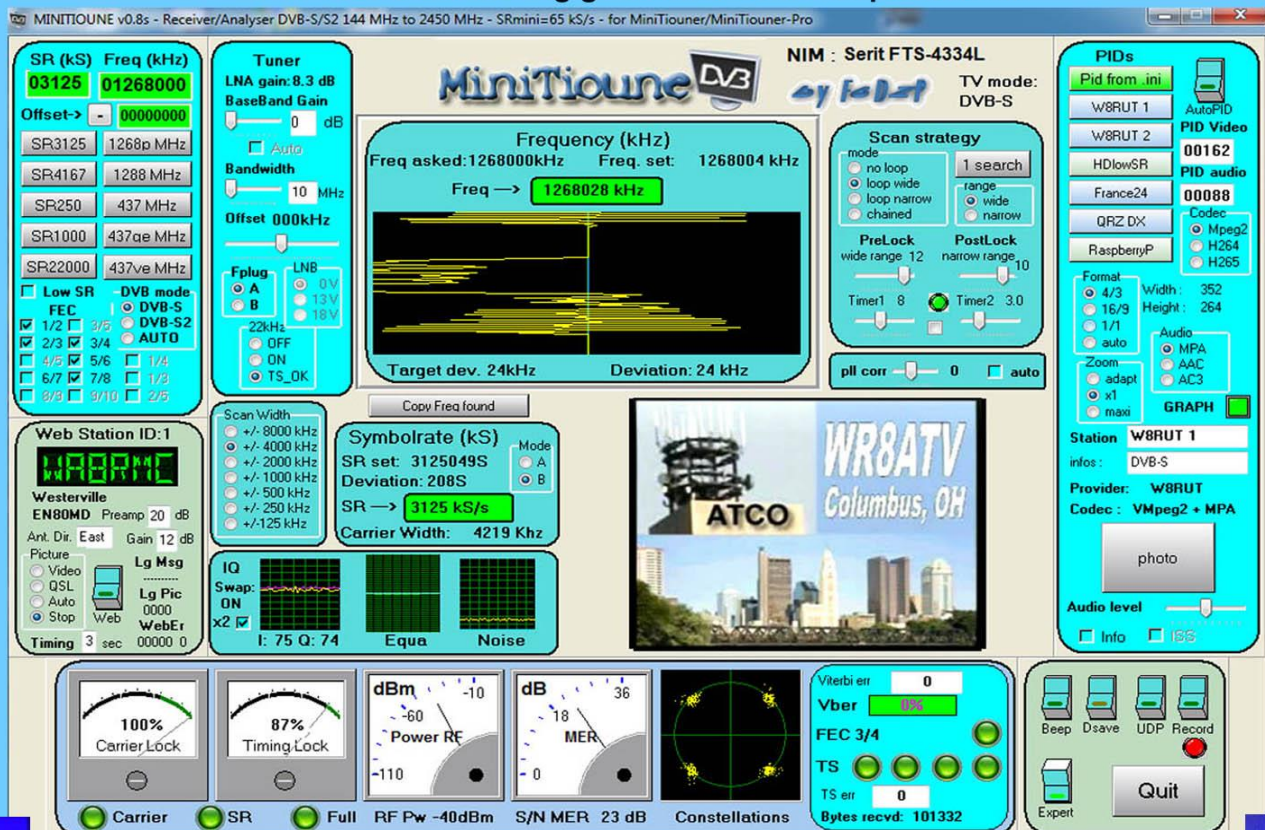
Digital Amateur Television DVB-S/S2 Receiver / Analyzer



Available at DATV-Express.com

- Operates with Windows PC using free MiniTioune software from Jean-Pierre F6DZP
- Smaller than a stack of 2 decks of cards (picture above is full size)
- Two independent simultaneous RF inputs with internal preamps
- High sensitivity -100dBm @1288MHz – at 1/2 FEC
- Fully assembled/tested in aluminum enclosure
- Covers 144-2420MHz (ideal for Space Station DATV reception)
- Symbol rates from 75 KSymb/s to >20 MSymbols/sec
- Uses external 8-24VDC supply or +5V from USB-3 port (with small modification)
- Real time signal modulation constellation & dBm signal strength display
- Price: US \$75 + shipping – order with PayPal

For details & ordering go to www.DATV-Express.com



(MiniTioune display above is the ATCO 1268MHz DVB-S repeater signal at WA8RMC QTH 15 miles away).