

VOL. LIII NO. 2 P.O. Box 3454, Tustin, CA 92781-3454 February 2012

### *The PREZ Says:*



Wow, it's February already, and the timeline of scheduled OCARC events is advancing quickly. Before we know it, Field Day will be upon us, and we should start giving serious thought as to how we want our Field Day to be...low key, or high effort (as we've done successfully in at least 2 previous years). The "High Effort" Plan requires the participation of numerous members dedicated to the operation. This would give us the desired result and point/QSO numbers we seek. In any case, the desired outcome is for all participants to enjoy our hobby and have FUN! Also coming up is Valentine's Day and this month's General Meeting, highlighting Margie Hoffman, KG6TBR presenting on "YL DX-pedition to Curacao PJ2 Land". With that, please enjoy and I'll look forward to seeing you at the meeting.

73 de Paul W6GMU  
"The Prez"

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**THE ORANGE  
COUNTY  
AMATEUR RADIO**



**Club Dues:**

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

Dues run from Jan. through Dec. & Are prorated for new members.

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

\*\* There is a \$1.50 charge for the badge being mailed to you.

**ORANGE COUNTY AMATEUR RADIO CLUB – W6ZE**

**2011 Board of Directors:**

**President:**

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**Secretary:**

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Nicholas Haban, AF6CF  
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**2012 Club Appointments:**

**W6ZE club license trustee:**

Bob Eckweiler, AF6C  
[af6c@w6ze.org](mailto:af6c@w6ze.org)

**Club Historian:**

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[wb6ixn@w6ze.org](mailto:wb6ixn@w6ze.org)

**RF Editor for February:**

Kristin Dankert, K6PEQ  
[k6peq@w6ze.org](mailto:k6peq@w6ze.org)

**WEB Master:**

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**Assistant WEB Master:**

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**ARRL Awards Appointee:**

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Larry Beilin, K6VDP  
[k6vdp@aol.com](mailto:k6vdp@aol.com)

**OCCARO Delegate:**

Kristine Jacob, KC6TOD  
[kc6tod@w6ze.org](mailto:kc6tod@w6ze.org)

**MONTHLY EVENTS:**

**General Meeting:**

Third Friday of the month  
at 7:00 P.M.

AMERICAN RED CROSS  
601 N. Golden Circle Dr.  
(Near Tustin Ave. & 4<sup>th</sup> St.)  
Santa Ana, CA

**Club Breakfast:**

Second Saturday of the month  
at 8:00 am

Jaugerhaus  
2525 E. Ball Road  
(Ball exit off 57 freeway)  
Anaheim, CA

**Club Nets (W6ZE):**

7.086 ± MHz CW OCWN  
Sunday 9-10 a.m.  
John WA6RND, Net Control

28.375 ± MHz USB  
Wednesday 7:30-8:30 p.m.  
Bob AF6C, Net Control

146.55 MHz Simplex FM  
Wednesday 8:30-9:30 p.m.  
Bob, WB6IXN, Net Control

# OCARC GENERAL MEETING MINUTES 2012-01-20

The OCARC January General Meeting was held at the Red Cross complex in Santa Ana on Friday evening, January 20th, 2012. There were a total of 40 members and visitors present. Eight club officers were present for a quorum....only Paul W6GMU and John W6JOR were absent.

Club Vice President Carl Flint, N8AE, opened the meeting with the Pledge of Allegiance and then introduced our speaker for the evening, Carl Gardenias WU6D, the ARRL Section Manager for the Orange Section who spoke on "What's New and Happening in the Orange Section – *The Juiciest Section*".



[Carl WU6D explains the ARRL Do It Yourself \(DIY\) Promotion](#)

Carl WU6D outlined a number of upcoming events occurring in the Orange Section, explained the benefits for bringing in new hams using the new ARRL promotion for DIY activities, and reminded everyone to use the Orange Section website at:

**[www.Orange-ARRL.org](http://www.Orange-ARRL.org)**

A lively discussion evolved concerning the substantial obstacles presented by HOA CC&R contracts...to new people entering ham radio.

## NEW BUSINESS

**APRIL Meeting Date** - The normal April meeting date (3<sup>rd</sup> Friday) is conflicted with two significant ham events: the Visalia DX Convention and the Baker-To-Vegas (B2V) Running Event. The club members agreed to move the meeting date to April 13.

**OCCARO** – Kris KC6TOD announced that OCCARO (the Orange County Council of Amateur Radio Organizations) is trying to reach out to have more radio clubs to join OCCARO and have their voices heard. Kris asked if any OCARC members belong to multiple clubs or know of people who belong to non-participating clubs that they suggest those organizations join OCCARO.

**Field Day** – Carl N8AE has offered to be Field Day co-Chairman. He is looking for one OCARC member to be his co-chair and help him organize FD as done the OCARC way.

## OLD BUSINESS

**BYLAWS Amendments** – Ken W6HHC presented three proposed changes to the OCARC BYLAWS:

- Adding CA filing requirements to Treasurer Duties
  - Adding IRS filing requirements to Treasurer Duties
  - Moving a paragraph around to clarify section on Amendm'ts
- These three motions were made and passed by the members present. Complete details of the changes can be found in the January OCARC newsletter. [Note: A new copy of the revised BYLAWS (Rev F) can be found on the club website by selecting the link called ITEMS OF INTEREST.]

**Soldering Class** – Bob AF6C announced that the first of two planned sets of Soldering Classes for OCARC members will have a meeting at (before?) the **February March** club general meeting. [**Secretary note: these plans have been rescheduled for March.**] An announcement will e-mailed to all. The first set of classes is planned for soldering “newbies”.

Respectfully submitted by:

Ken Konechy W6HHC, Secretary



**OCARC February Meeting Speaker  
Margie Hoffman, KG6TBR**

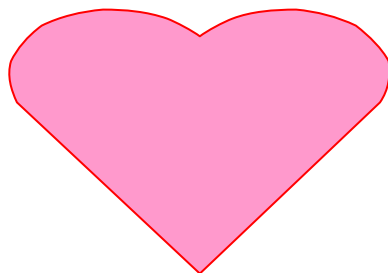
Margie KG6TBR will be our speaker at our February meeting on the 17<sup>th</sup>. She will be talking about a YL DX-pedition to Curacao – PJ2 Land. Come here about the adventure of 6 YL's who made it their mission to find a great location, minimal station setup, a warm climate and lots of great contacts on the air! It should be a fun presentation and if you can't afford a vacation this is a great way to escape into the stories and pictures and take a mental vacation to Curacao!




# 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. Check out the upcoming events page in this newsletter to see the exciting speakers we have lined up for the next couple of months. Don't forget about the great drawing 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>



**The 63rd Annual International DX Convention**  
**Sponsored by the Southern California DX Club**  
**The Holiday Inn Hotel & Conference Center Visalia**  
**April 20, 21, 22, 2012**

The International DX Convention is the world's foremost DX convention. If you are a DXer or interested in any aspect of ham radio you need to be at Visalia. Top DX operators from around the world will be there. Meet the big guns from the US, Asia, Europe, Africa and Oceania. Meet the people on the other side of the mic or key. Shake hands with the person you have had that sked with for the past 10 years. Renew friendships. Don't forget your YL! We have planned another great Saturday Tour. Bring the kids, there is even a prize for the youngest ham at the convention. 

Top DXpeditioners from every continent tell you how they did it. Learn the secrets for big signals on the top band, how to have fun and adventures chasing IOTA, contest forum, DX forum, seminars for everyone from the seasoned pro to the beginning DXer. Bring your latest QSL card arrivals for checking. Join the CW Pile Up Competition. Attend the traditional Saturday night banquet where great friends and good food are met with lively presentations. The Sunday breakfast buffet has ample selection and variety. Enjoy more presentations and another T.V. parody, by the San Diego DX Club; this year there is a new twist! Visit the manufacturers' midway where you can talk to the people who design and use the latest and best equipment. K6V will be on the air from the Hotel. Try the latest rig with the newest antenna. Don't forget the raffle prizes which top even the famed Dayton Hamvention!

Check out more details on the website [www.dxconvention.org](http://www.dxconvention.org)!



# New Year, New Antenna!

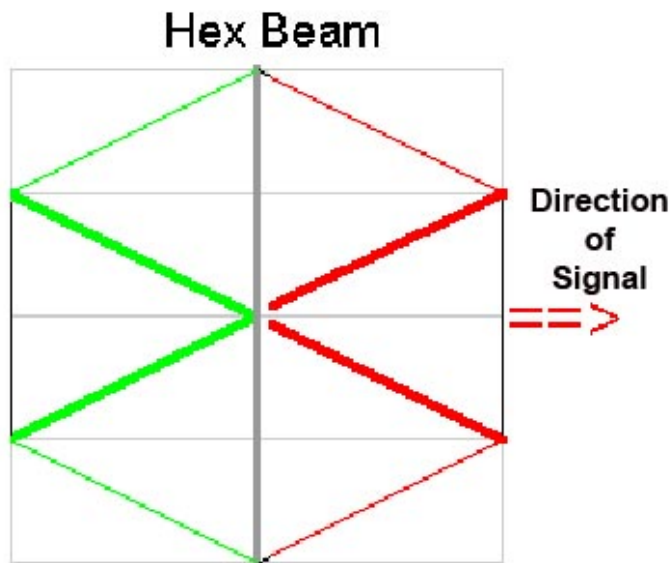
by Jeff Hall, W6UX

Following the January OCARC board meeting a few members gathered at my home to help assemble and raise my first ever beam antenna. Attending were Carl (N8AE), Kenan (KR6J), Rick (AE6RS), and Tim (K6GEP).

While my multi-band doublet had served well, netting me with 103 countries confirmed, it was becoming increasingly difficult to work new DX or bust contest pileups quickly. I needed something with gain and the ability to direct my signal. After several weeks of research I bought a 5-band Hex Beam antenna from Traffie Technology. Some details about this antenna:

- < 2:1 SWR across the 10, 12, 15, 17, and 20 meter bands
- Rated to 1500 watts
- Weight is < 20 pounds
- 9.5' turning radius
- Wind load is < 5 square feet
- Average gain per band is 6dBd
- No traps, coils, or matching network to burn up!

Each of the 5-band elements consists of a driven element and a reflector element:



**Green** = Reflector Element; **Red** = Driven Element (top view)

Six fiberglass spreader arms and a center mast are pulled up into a hexagonal, parabolic shape by support lines and the elements themselves. The feed point of the antenna is at the top of the center support mast. Inside this mast is a wire harness that ties each set of elements to the coax feed line. To support my hex beam at 40' I've guyed a Spiderbeam aluminum mast with three sets of ropes at two levels and installed a thrust bearing that is bracketed to the eave of my house. To minimize weight at the top, I've installed a Yaesu G-800DXA rotator at ground level (it turns the entire mast inside the guy plates bushings). The antenna is fed with 100' of LMR400 Flex coax.

Assembly of a Traffie Hex Beam is simple but it helps to have a few friends hold it in place as the wire elements are connected. The tension of the wires and support lines is what gives the antenna its parabolic shape and strength and this tension increases as each band is wired. Space can be a problem during assembly if you don't have much to work with. I've got a small backyard and the antenna has a diameter of 20' before it is pulled into shape. Luckily, I had just enough room in the corner of my lot. My outdoor table has a hole for an umbrella so I inserted the antenna hub into it to keep everything in place as we worked.



**N8AE, W6UX, and K6GEP wiring up the hex beam**

After about two hours the antenna was ready to be placed on the mast. The challenge now was how to move the array about 20 feet over to the mast without damaging it or my freshly painted house. Kenan and I got up on the roof while Rick, Carl, and Tim lifted it from below. Together we walked it "sideways" over to the mast and carefully lifted it into place. Fortunately most of the weight is right at the center hub, so it was quite manageable.





**Antenna is mounted onto the mast (from left: N8AE, K6GEP, AE6RS, KR6J, W6UX)**

The last step before raising was to point the beam true north and attach the coax. I've got a Sycamore tree that exactly due north from the location of the mast so this was a trivial process. Even so, we double-checked the heading with our GPS units and smart-phones. Yup, the tree is lined up with due north.

It's important when you're raising a new antenna for the first time that you remember to take care of as many details as you can think of beforehand. We reviewed the instructions, attached the coax and routed it so as not to get tangled up when the mast rotates. Scotch 33 electrical tape was added here and there and then coated with liquid tape for additional weatherproofing. With luck, I won't have to lower the antenna for maintenance for a few years.



**Victory! The antenna is pointing North**



**Mast raised into place at 40 feet. Note that the coax is attached to the guy plates.**

After a final tensioning of the ropes it was time to take SWR readings and get on the air! Tim's analyzer showed all bands with very low SWR readings, confirming the claims made by Traffic Technology. I no longer need a tuner and installing an amplifier in the future shouldn't be an issue for this antenna.

It was early evening by the time we finished and the bands had started to die out. It didn't help that most of the country was watching the NFL playoffs, so I'd have to wait until the following morning to try my new toy out. Sunday morning about 9 am I was hearing signals from Europe and Africa. Worked V5/DJ2HD (Namibia) on my second attempt. I was +20 dB over into Alaska later in the day, and +10 dB with VP8LP in the Falkland Islands; they were just as loud my way! Not bad for 100 watts. I've also gained a few more hours of operating time than I had with the doublet.

The following weekend I competed in the North American QSO Party (SSB) contest. I operated for 10 hours straight and racked up over 700 QSOs. I've never made so many contacts in a Phone contest and even after dark I was getting reports of being +20db over S9 into the mid-west on 20 meters with 100 watts of power. So the hex beam has definitely enhanced the capabilities of my station.

For those who'd like to see more detailed photos of this project, please visit my QRZ.com bio page, click on the link labeled "W6UX Web Galleries", and browse the album titled "Hex Beam".

Again, tremendous thanks to Carl, Kenan, Tim, and Rick!

73 de Jeff, W6UX  
w6ux@arrl.net

## **OCARC ANNOUNCEMENTS!**

### **March 16, 2012 - "T32C - Christmas Isle DXpedition"**

Arnie - N6HC will present a talk and slide show on the very successful DXpedition to Kiritimati (Christmas Island), part of East Kiribati (formerly Northern Line Islands) that is now governed by the Republic of Kiribati. Don't miss Arnie's presentation.

## April 13, 2012 – Club Meeting

**The April club meeting has been moved to April 13<sup>th</sup>, one week earlier!  
Make sure to mark your calendars!**

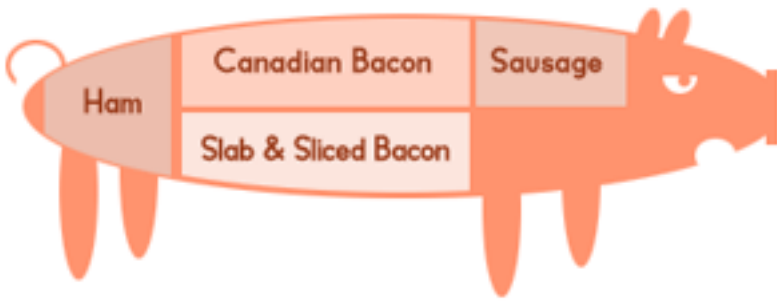


## Renew Your OCARC Membership

It's that time of the year again. Time to renew your OCARC membership for 2012, if you have not already done so.

Help continue to support your growing club. There are many entertaining monthly meetings, speakers and events planned for this year. But it can't happen without your support for OCARC.

Dues can be paid at the monthly club meetings, club breakfasts or via snail mail. Regular dues are only \$20. Additional family members are \$10 (Total). Membership for teenagers under the age of 20 is only \$10 as well. What a deal!



- 
- **Ham Cuisine**

*Kristin Dankert K6PEQ*

## **Valentine's Delight Ham Sandwich**

### **Ingredients:**

- 6 slices (6 ounces) of thinly sliced ham
- 4 slices of cheese bread
- 2 tablespoons of reduced-fat or regular mayonnaise
- 1/8 cup roasted red peppers
- Heart Shaped Cookie Cutter

### **Cooking Directions:**

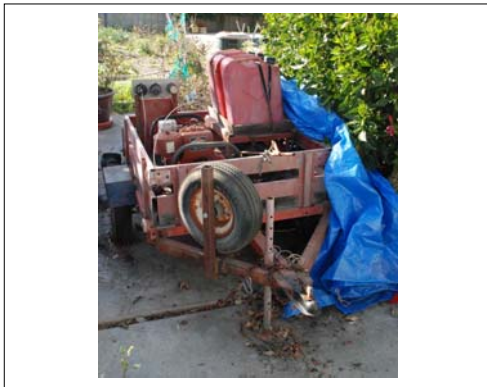
Toast cheese bread and cut with the heart shaped cookie cutter. Spread one side of each slice with mayonnaise. Layer ham on two slices of bread. Top with peppers and remaining bread. Cut sandwiches in half and serve half of your heart sandwich to the one you love. Serves 2.

### **Serving Suggestions:**

Serve with heart shaped pasta salad for the added touch of love!

## OCARC Trailer for Generator Needs New Storage Home

Ken W6HHC has requested that a new member of the OCARC take over responsibilities for storing the OCARC Trailer used to carry the club generator. The trailer is 54 inches wide and 82 inches long (including the hitch tongue). A back yard (trailer has a tarp) or a shed or a corner of the garage would be ideal?



The plan is to transfer the club's newer generator onto the trailer to allow easier transportation logistics. With a trailer, picking up the generator just requires one person with a trailer hitch. If you are willing to store the club generator, please call Ken W6HHC (714) 348-1636 (cell).



# February Puzzler:

## The Antenna Tuner Belt

A Japanese electronics company was discussing the design of their new remote antenna tuner. This weatherproof device was to be mounted at the top of a 500-meter tower. One concern the review team had was with the life the flat drive belt that drives the variable capacitor. The engineer said that the belt was good for 2,000 to 2,500 operations, or about a half a year in service. The head of the design review wanted a longer life than that. The engineer stated that after the half year in service the tuner belt could be serviced quickly by just turning the belt over and reinstalling it.

The design head said that that was not acceptable since someone would have to climb the tower just to accomplish reversing the belt. Instead he insisted the belt last at least 4,000 operations so it could be changed during the once yearly scheduled inspection climb.

The engineer thought for a few minutes and then offered a simple solution that didn't involve changing the material or thickness of the belt, and that everyone agreed would work.

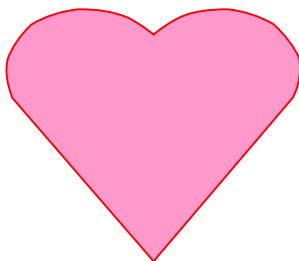
What was the simple solution?

Send your solution to:

[puzzler@w6ze.org](mailto:puzzler@w6ze.org)

First five correct answers will be acknowledged. Answers from all readers will be accepted.

We have had little response to our first two puzzlers. Thus this will be the last puzzler.



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## January RF Puzzler Answer:

Bruce - KC6DLA provided the January puzzler and a table that shows one solution. The trick to the puzzle is to measure four of the twelve balls against four of the other balls. If they balance then you know that the odd ball is one of the remaining four balls and can go from there. If, on the other hand the more likely scenario occurs, you know that none of the four un-weighed balls are the odd ball and have a clue as to which might be heavy or normal and which might be light or normal. From there it is just using a little thought to choose the correct balls to weigh between to determine the odd ball and its weight-condition.

Please refer to Bruce's chart on the [next page](#) for the full answer.

In Bruce's chart, the ball numbers that are in RED represent conditions that cannot exist. For example, for the first measurement in the left had column we already know that 1, 2, 3, and 4 cannot be light and 5, 6, 7 and 8 cannot be heavy. Thus they are be marked in red as a known invalid condition, and only the valid balls weighed.

Our winners, in the order received are:

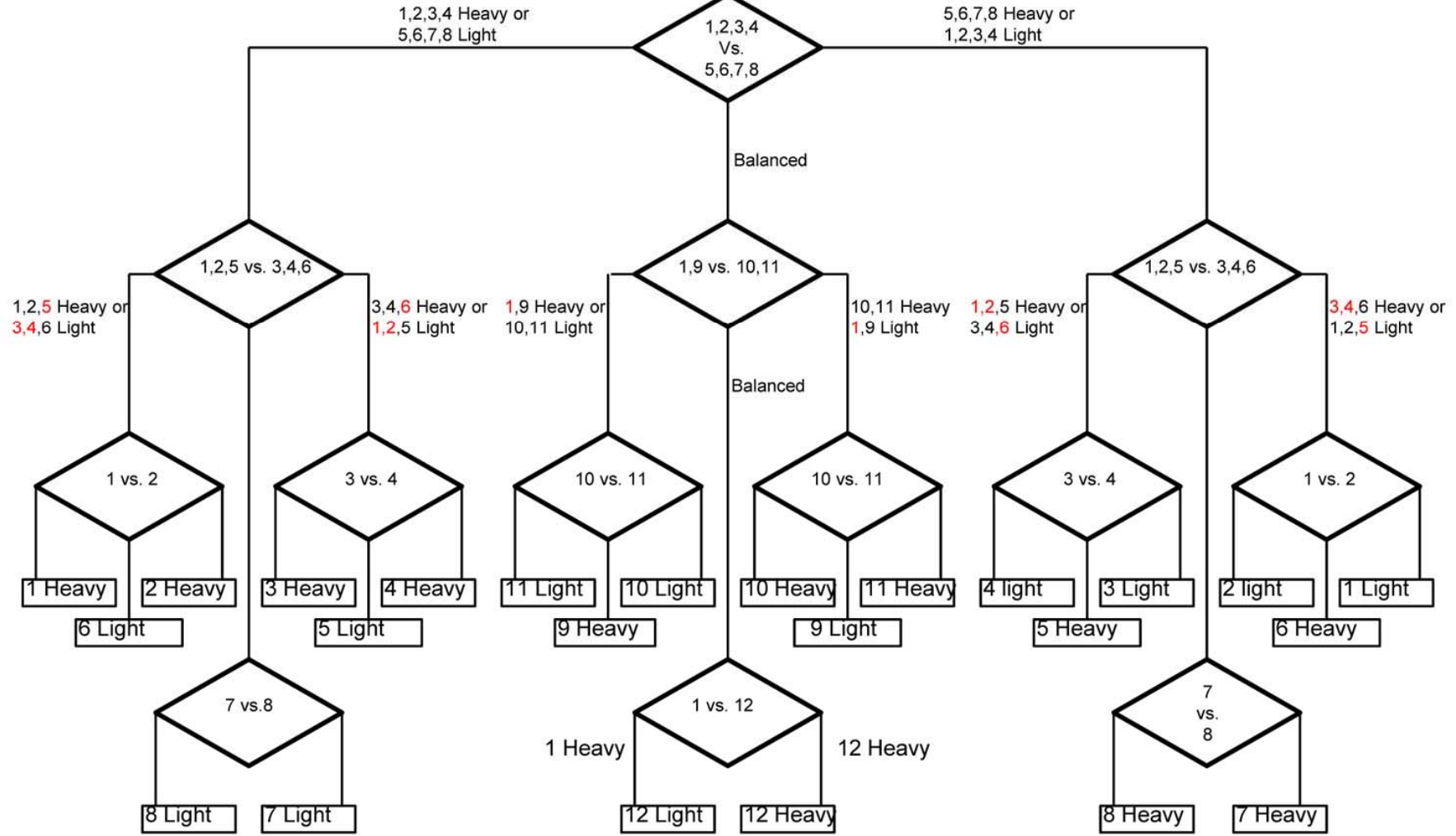
1. WA6WZO - Fried Heyn
2. AF6C - Bob Eckweiler\*
3. none
4. none
5. none

\* Fried was moved up to the top as I got a head start on this when Bruce and I discussed the puzzle.

de - AF6C

# Solution to January Puzzler 12 Billiard Balls

12 Billiard Balls numbered 1 thru 12.  
One of the 12 Balls is either lighter or heavier than the other 11 balls.  
All other balls weight the same.





# OCARC BOARD MEETING MINUTES 2012-01-14

The OCARC Board meeting was held at the JägerHaus Restaurant, 2525 East Ball Road, Anaheim, and called to order by President Paul Gussow W6GMU on Saturday, January 14, 2012. All directors were present except Kristin K6PEQ. There were a total of ten members and visitors present.

## DIRECTOR REPORTS:

1. **VP** – Carl N8AE reported the following programs have been lined-up:
  - Jan – Carl WU6D on Orange Section
  - Feb – Margie KG6TBR on the YL DXpedition to Curaçao PJ2-land
  - Mar – Arnie N6HC on T32C DXpedition
2. **Treas** – Bob AF6C reviewed the results of 2011 financial audit [see Jan RF newsletter]
3. **Sec** – Ken W6HHC provided key to PO to Bob AF6C. Also handed out copies of BYLAWS duties to board members.
4. **Pub** – AF6C to update “Tri-fold” brochure with newer logo to Tim K6GEP.
5. **Tech** – John talked about an easy-to-build antenna article for HDTV.

## OLD BIZ:

- **Newsletter Editors**
  - Feb – Kristen K6PEQ
  - Mar – Doug W6FKX
  - April – Ken W6HHC
  - May – Paul W6GMU
- **FIELD DAY** – Carl offered to be FD co-chairman but needs someone to be co-chair to help organize, since Carl is fairly new to OCARC. Tim K6GEP will consider and confirm later. There was discussion that we can have big towers unless we can get commitment of many members to help with set-up and tear-down.

- **Soldering Classes** – Bob AF6C reported that the first series of soldering classes will consist of three sessions:
  - A meeting to discuss the plans
  - Work session using the soldering kits
  - Review student work and then solder coax

## NEW BIZ

- **Credit Union Signatures** – the new VP and new Treasurer would join Pres and old Treasurer to update the check signature cards at the Credit Union after the club breakfast.
- **MOBILE RADIO INSTALLATION SHOW** – There was discussion to have a Mobile Radio display at either an existing car show (like Enderle Plaza) or having a Bar-B-Q and Car Drive-in at a club meeting or at the beach.
- **New Club Activities** – there was interest to either hold a potluck or a picnic at the beach.
- **LogBooksOfWorld** – The OCARC currently does not have a LBOW account set up for W6ZE. Carl N8AE recommended that we should set it up....and board agreed. Carl will help the Trustee, Bob AF6C, to get started.

## GOOD of the CLUB

- **Winter Field Day** – Carl N8AE introduced the board to the concept of Winter FD! Back in Michigan and the Mid-West, ham clubs regularly participate in Winter FD at the end of January (Jan 29) that is sponsored by SPAR (Society for the Preservation of Amateur Radio). It may be too late to plan a club event in 2012...but maybe next year!


Respectfully submitted by:  
Ken Konechy W6HHC, Secretary



**SUBMIT  
AN ARTICLE**



You don't need to write like William "Bill" Shakespeare in order to write an article for the RF Newsletter. In fact, we prefer articles without the words "Thy", "Whilst", "'Tis" and "Oft".

Do you have an idea for a newsletter article? Maybe you have acquired a new piece of equipment, designed or constructed a new antenna, took a trip focused around ham radio, want to share an amateur radio related experience or discuss a technical topic. Why not write an article for the monthly RF newsletter? The article can be short or long, simple or elaborate, and can even include pictures! 

The RF newsletter relies on articles from our members. So why not give it try? Write an article and send it to the newsletter editor. It's fun, and at the same time, your contribution helps support our club and hobby!

If you want you can also try your hand as the newsletter editor. We have a rotating editor monthly and would love to have someone new give it a try. There is a template and it is easy and fun!!