



Smoke Signals

Newsletter of Fullerton Radio Club

March 2015

President's Message

Hi fellow Hams. It is March and this month we have a special speaker from Donate Life. He will be talking about his experience and the importance of this life saving organization. We would like to encourage you to come and listen as well as bring others to the meeting. This is in order to get us ready for the Donate Life run walk coming up in April. We would like everyone who can to contact Gene KB6CMO to volunteer to work radio communications for this event.

I would like to thank those who have helped get speakers for the general meetings. We still need more so if you know someone or have a topic you would like to speak on please let the board know so we can fill up the calendar. We also have a swap meet that has been proposed for the club but we need a few members to take charge of this and help get it going.

As for me I have got some of the things I wanted installed in my truck and am working on building an HF mobile antenna for it. Also at the end of the month my sister KJ6IEN and I will be heading to Vegas to work the Baker to Vegas relay. Hopefully I will have my antenna built and working by then so listen for me on the air (if you have a favorite frequency let me know and I will try to make contact with you).

Hope you all have a good month and look forward to seeing you at the meeting.

Albert Solomon AG6OF
FRC President

March Meeting Topic

On Saturday, April 25 Club members and hams from other organizations, for the thirteenth time, will participate as support communicators at the DONATE LIFE 5K run/1K walk at Cal State Fullerton. As you may know, the event is a non-competitive 5K/1K Run/Walk to educate and inspire the community about organ and tissue donation while benefiting the OneLegacy Foundation. Now in its thirteenth year, the Donate Life Run/Walk supports OneLegacy Foundation's mission to save and heal lives by inspiring and advancing donation and transplantation of organs

and tissues through research, public education, and honoring donors whose legacies live on.

Our March Club meeting presentation will be by John Whalen a liver transplant recipient, who will provide insight into the organization and its purpose that will inspire us to participate in this worthy event. Here's a brief background for his presentation.

In January of 2012 I had a terrible back pain. I went to the emergency room and was admitted into the hospital for Sepsis. The doctor determined the infection had spread into my body cavity and was attached to my spine and the nerves going into my left leg. I lost all the strength in my leg and surgery was required to remove the infection. They doctors were unable to determine how the infection had spread to my back. After 5 months of rehab I regained the strength in my leg, so my wife and I decided to have a party to celebrate. I remember setting up for the party Saturday morning then waking up in Hoag Hospital on Wednesday afternoon. I was diagnosed with hepatic encephalopathy (HE). I had a liver biopsy and was referred to UCSD for treatment. In June 2012 I found out I had cirrhosis of the liver caused by a genetic deficiency, alpha one antitrypsin deficiency, and nonalcoholic steatohepatitis (NASH). I also found out that the reason the infection, in January, spread to my spine was my diseased liver. I spent the next five months going in and out of the hospital due to the HE, ascites and portal vein thrombosis. I was informed I would need a liver transplant. I received the call on February 26, 2013 and had my transplant the next day. My Donor/My Hero is Jason Gosnell from Arizona. He had a gran mal seizure on February 17th and remained in hospital until the 25th. Since my transplant I have had written correspondence with my donor's mother and have invited her to join me at the run/walk this year. I enjoy a healthy and active lifestyle that includes jogging, cycling, biking and travel. I give thanks for Jason every day.

John Whalen

March Board Meeting Minutes

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Show –and–Tell

Bring something of interest to the meeting to show and share your story. Something old, new, or just of interest to hams.

President Albert Solomon AG6OF called the Board meeting to order at 7:51 PM. Others present included Vice President Bill Preston KZ3G, Treasurer Gene Thorpe KB6CMO, Board members Larry McDavid W6FUB, Richard Belansky KG6UDD, Robert Gimbel KG6WTQ, Paul Broden K6MHD, and member Cheryl Thorpe KE6TZU.

Minutes of the February Board meeting were reviewed and approved.

Treasurer's report: Checking, \$2536.24; Savings, \$3073.54. An additional \$95 is yet to be deposited.

Membership: Larry McDavid will provide the Board with an updated list of members within a few days.

Old Business:

The proposed club swap meet is to be presented at a general Club meeting and, if accepted, an organizational committee will be identified. Numerous items remain from the W6ZJE legacy.

The timeframe for Club meeting activities will be reordered. Club business and other information will be presented prior to the speaker presentation. Recent meetings where the speaker is first has resulted in departure of attendees during the break.

There is no update on the proposed club ham shack.

The request for Club members input for identification of speakers at the meetings has been a bit more successful. Speakers for April and May have been identified, with two additional potentials.

The DonateLIFE run/walk event is April 25. Additional ARO volunteers are needed.

Antennas In The Park location and date are to be confirmed. The County of Orange (new park controller) now wants \$200 for space utilization. Gene will see if we can link with Placentia RACES for this event so there is no fee. We need to verify the plans for T-Hunt at the event with Joe Moell K0OV.

Gene was presented with a check for \$100 to assist with cost of gasoline for the many trips he has made to HamCon meetings.

New Business

The newsletter has received some significant input from Walter Clark. Thanks Walter.

IRS and California tax reports are due. Paul K6MHD will submit them again this year.

Richard KG6UDD suggested that the Clun needs a projector screen for use during presentations. He will investigate availability and cost. Larry W6FUB suggested that it not be a lenticular screen as they do not work well with computer projectors.

The meeting was closed at 8:35 PM

Submitted by Paul Broden K6MHD

Technical Tips

By Walter Clark

Today's tip comes to you indirectly from Eric Forte. He did a good job at the last SBMS meeting explaining to me about dBm and watts. I was a bit embarrassed because this was about the fifth time I've had to have this explained to me. I noticed that he inadvertently revealed a short cut. I suspect this shortcut is common but rarely admitted to because to do so reveals the little lie that you understand this stuff. Let's start with a table:

dBm to Watt Conversion Table

dBm	Watts	dBm	Watts	dBm	Watts
0	1.0 mW	16	40 mW	32	1.6 W
1	1.3 mW	17	50 mW	33	2.0 W
2	1.6 mW	18	63 mW	34	2.5 W
3	2.0 mW	19	79 mW	35	3.2 W
4	2.5 mW	20	100 mW	36	4.0 W
5	3.2 mW	21	126 mW	37	5.0 W
6	4 mW	22	158 mW	38	6.3 W
7	5 mW	23	200 mW	39	8.0 W
8	6 mW	24	250 mW	40	10 W
9	8 mW	25	316 mW	41	13 W
10	10 mW	26	398 mW	42	16 W
11	13 mW	27	500 mW	43	20 W
12	16 mW	28	630 mW	44	25 W
13	20 mW	29	800 mW	45	32 W
14	25 mW	30	1.0 W	46	40 W
15	32 mW	31	1.3 W	47	50 W

Instead of teaching the math, merely memorize the values circled above. (I'm sure you recognize the powers of ten.) Got it? OK, 30 dBm is what? That's right 10 to the third in milliwatts.

Now here's the trick. What about all those between these memorized values? Don't think of half way between 10mW and 100mW; think instead of half way down from 100 mW. That's 50 mW. OK, look at the table for that power. Hmm it is three dB down from whatever 100 mW is. Just 3; not 30. Half way down from 10 watts? 40 minus 3 is 37. Half way down from 10 million watts (100 dBm) is 97. Mastered that? You now know 10 conversions: ten, hundred, five, fifty and so on. Here's another trick. Note that 2 mW is twice 1, and 20 watts twice ten. In the table above, that's plus 3. Now you know 15 conversions almost by heart.

Memorizing that 1 mW, 10 mW, 100mW is 0, 10, 20, 30, etc. is the easy part. What's hard is remembering that 5mW, 50mW, 500mW is 3 down. And 2mW, 20mW, 200mW is 3 up.

When you want to impress someone you never want to say milliwatts. That's for physicists. Instead just remember if it is...

- 1, 10, 100 and so on mW, it's 0, 10, 20, 30 dBm etc.
- 5, 50, 500 and so on mW, go the next power of ten and down 3 dBm.
- 2, 20, and so on, drop down one power of ten and add 3 dBm

Likewise if your think in terms of watts and the person speaking to you is trying to show how smart he is using dBm...

Just remember that dee bees come in values that are ten apart like 0, 10, 20, 30, 40, 50. If the dBm value is between 20 and 30 you know that it is between 100 mW and 1000 mW. That's probably close enough. But if you've really mastered this stuff, look for whether it is closer to two away from 20 or 3 away from 30.

Notes from the February Club meeting

If you missed the February meeting you may still like to know some of the information presented. Below is from a notes page provided by the February speaker.

The Red Cross Disaster Services Technology Group covers many disciplines to provide electronic communications for Red Cross personnel. While RADIO communications is a LARGE part of that function, it is far from being the entire picture. This distribution will hopefully provide insight and information explaining what those other technologies and functions entail.

As it turns out, the Orange County Chapter of the American Red Cross was one of premier areas of California and one of the pilot areas in the country where training for extended technological communications support was first introduced and implemented. Unfortunately, even after more than a year, the functions, training and added areas of support are still relatively new enough to not yet be adequately described on the Red Cross website. Therefore, until an official, national description appears, and on behalf of myself and other DST members who have completed the combined on-line and hands-on training, I'd like to share some bullet points to help describe the group's expanded functions and responsibilities entail.

Some of the numerous functions that DST provides for shelters, services centers and emergency operations include:

- Charging, testing, distribution and ACCOUNTING FOR the issuance of CELL PHONES and, *when applicable*, SATELLITE PHONES along with spare batteries and chargers.
- Providing records of the phone numbers and names of personnel with loaned phone equipment so they can be reached for coordinating Red Cross activities.

- Providing shelter & service center workers and other key personnel with portable radios, chargers, spare batteries and simple instructions on their use.
- Coordinate and assign tactical call signs or radio ID numbers and account for those designations along with radio gear that is issued.
- Assist shelter managers to assess facilities for requirements and the location & placement of telecommunications equipment.
- If needed at a shelter of service center, set up cables and/or wireless connectivity to laptops, printers, IP fax machines, IP phones and a network switch or hub as well as a network server.
- Secure and lockdown laptops and network equipment to prevent unauthorized removal and to assure its availability.
- Provide laptop users with the basic instructions to get started including initial log-Ons as well as information on how to get 24-hour help desk support and assistance in using Red Cross equipment, software, programs and resources.
- Where servers and/or laptops are provided, establish internet connectivity as needed via T-1 lines, existing DSL, *air cards* or other means.
- If required, establish a satellite link for Red Cross networks, IP phones and fax machines.
- Connect and enable Red Cross Business Band Radio equipment in Rental vehicles and loaned transportation vehicles as applicable in a temporary fashion for use as needed during disaster operations.
- Establish base station radios for Red Cross Business band use and/or amateur radio base stations along with portable antennas as may be needed at shelters, service centers or field operating sites.
- Staff Red Cross Emergency Operations Center and/or the Radio Room at the chapter office to provide radio communications from the chapter to field personnel, other Red Cross facilities and to other emergency operation centers, local, state and federal government entities

and to our RACES and ARES amateur radio affiliates.

- If required, staff the Red Cross mobile communications trailer with duties similar to the EOC & radio room.
- Provide or assist shelters, service centers and field personnel with their communications needs.
- Assist volunteers and staff in understanding DST's functions and capabilities.
- Provide reliable and accurate message traffic delivery.
- Collect, inventory and account for returned equipment and assure it is operational and, where applicable, charged and ready for next use.
- Test and assure proper operation of mobile 2-way radios in chapter vehicles.
- Participate in drills, training and on-air nets to keep skills current and to be ready to respond where needed.
- Be a part of the team! Assist with activities that prepare the Red Cross and our partner agencies and M.O.U. affiliates to be able to provide services to those in need.

As you can see from this list, we've expanded our role in telecommunications. It's not just radio anymore. You do not need to have an amateur radio license, but it is desirable and we'll help you get one if you wish. And you do not *need* to perform each and every function of DST – if you prefer to focus mostly on radio or mostly on Information Technology then that's OK. It's up to you! But it's our goal to provide the training for all of the facets of what the group does so that you can participate in those areas that interest you the most.

David A. Popko AF6TN
Orange County Activity Lead
Disaster Services Technology –
Communications
American Red Cross
600 Park Center Drive
Santa Ana, CA 92705
949-433-8301 (Cell Phone)

[Ed. Volunteers are needed. Call Dave if interested.]

The true meaning of being GREEN!

"That Green Thing of Today"

Checking out at the store, the young cashier suggested to the much older lady that she should bring her own grocery bags, because plastic bags are not good for the environment.

The woman apologized to the young girl and explained, "We didn't have this 'green thing' back in my earlier days."

The young clerk responded, "That's our problem today. Your generation did not care enough to save our environment for future generations."

The older lady said that she was right -- our generation didn't have the "green thing" in its day. The older lady went on to explain:

Back then, we returned milk bottles, soda bottles and beer bottles to the store. The store sent them back to the plant to be washed and sterilized and refilled, so it could use the same bottles over and over. So they really were recycled. But we didn't have the "green thing" back in our day.

Grocery stores bagged our groceries in brown paper bags that we reused for numerous things. Most memorable besides household garbage bags was the use of brown paper bags as book covers for our schoolbooks. This was to ensure that public property (the books provided for our use by the school) was not defaced by our scribbles. Then we were able to personalize our books on the brown paper bags. But, too bad we didn't do the "green thing" back then.

We walked up stairs because we didn't have an escalator in every store and office building. We walked to the grocery store and didn't climb into a 300-horsepower machine every time we had to go two blocks. But she was right. We didn't have the "green thing" in our day.

Back then we washed the baby's diapers because we didn't have the throw away kind. We dried clothes on a line, not in an energy-gobbling machine burning up 220 volts. Wind and solar power really did dry our clothes back in our early days. Kids got hand-me-down clothes from their brothers or sisters, not always brand-new clothing.

But that young lady is right; we didn't have the "green thing" back in our day.

Back then we had one TV, or radio, in the house -- not a TV in every room. And the TV had a small screen the size of a handkerchief (remember them?), not a screen the size of the state of Montana. In the kitchen we blended and stirred by hand because we didn't have

electric machines to do everything for us. When we packaged a fragile item to send in the mail, we used wadded up old newspapers to cushion it, not Styrofoam or plastic bubble wrap. Back then, we didn't fire up an engine and burn gasoline just to cut the lawn. We used a push mower that ran on human power. We exercised by working so we didn't need to go to a health club to run on treadmills that operate on electricity. But she's right; we didn't have the "green thing" back then.

We drank from a fountain when we were thirsty instead of using a cup or a plastic bottle every time we had a drink of water. We refilled writing pens with ink instead of buying a new pen, and we replaced the razor blade in a razor instead of throwing away the whole razor just because the blade got dull. But we didn't have the "green thing" back then.

Back then, people took the streetcar or a bus and kids rode their bikes to school or walked instead of turning their moms into a 24-hour taxi service in the family's \$45,000 SUV or van, which cost what a whole house did before the "green thing." We had one electrical outlet in a room, not an entire bank of sockets to power a dozen appliances. And we didn't need a computerized gadget to receive a signal beamed from satellites 23,000 miles out in space in order to find the nearest burger joint.

But isn't it sad the current generation laments how wasteful we old folks were just because we didn't have the "green thing" back then?

We don't like being old in the first place, so it doesn't take much to piss us off... Especially from a tattooed, multiple pierced smartass who can't make change without the cash register telling them how much.

Am I being cynical in my old age?

Paul K6MHD

FRC Regular Club Meeting

Third Wednesday of each month
Chapman Activity Center
2515 San Carlos Dr.
Fullerton, CA

Next Regular Meeting
Wednesday,
March 18, 2015

Dinner before the meeting at 5:00 PM at:
Coco's Restaurant, 1011 N. Harbor Blvd.

Meeting time: 7:00 PM
Visitors are welcome

MEMBERSHIP DUES ARE DUE

ARDF Training at Bonelli Park 3/21/15

The next southern California on-foot transmitter hunting session will be Saturday, March 21, 2015 at Bonelli Regional Park. The emphasis in this session will be training to help you improve your bearing-taking, map-reading, navigating and course-planning skills. Experts will be on hand to help you.

There will be hidden transmitters suitable for both beginner and intermediate level transmitter hunters. All ages are welcome, so bring the family. A ham radio license and/or knowledge of radio equipment are not requirements. Try your hand at some easy two-meter transmitters set by Joe Moell K0OV plus a 5-fox two-meter international-rules course of beginner-to-moderate difficulty, set by Marvin Johnston KE6HTS. One or more fox transmitters on the 80-meter band may also be set up to try, as well as a foxoring course.

For those who want to build RDF gear for use with their own two-meter hand-held radios or scanners, Marvin will have kits for measuring-tape yagis and active attenuators. There will be tools and soldering stations for building. If you're not an electronic technician, don't worry because there will be experts to help you. Send e-mail to Marvin (marvin@west.net) to pre-register and get more information about equipment. The building session will only take place if there are sufficient advance registrations. If you already have equipment and just want to hunt transmitters, you don't need to pre-register.

If it takes place, the building session will start at 9:30 AM. Please be prompt. Beginner transmitters will be on the air at that time. The main 5-fox hunt will start about 10:30 AM. Hunters may start the courses at any time until 1 PM. Courses close at 3 PM.

For the advanced 2-meter course, electronic scoring will be used. If you have an "e-stick," be sure to bring it. A \$5 donation is requested for the advanced course to cover expenses related to the use of Los Angeles Orienteering Club's e-punch equipment and maps. The beginner course and the 80-meter transmitter hunt are free of charge and e-punch is not required for them.

If you have receivers, scanners, directional antennas, attenuators, or other equipment suitable for on-foot RDF, be sure to bring it. Make sure all batteries are fresh. A limited amount of RDF gear will be available for loan.

Trails are primitive in some areas of the park, so wear sturdy shoes. All ages are welcome, but young children

must be accompanied by an adult at all times.

Bonelli Regional Park is near Raging Waters, Brackett Field, and Puddingstone Reservoir. From the 57/210 freeways, take the Via Verde exit and go east through the entrance to the park. (Map at www.homingin.com) There is a per-vehicle entry fee. Go approximately 1/4 mile beyond the entrance and turn left into the parking lot for the Snack Shoppe (formerly the bike rental stand). Look for the orange-and-white orienteering flag directing you to the starting area. Talk-in is on 146.52 MHz simplex.

I hope to see you there.

73,

Joe Moell K0OV
www.homingin.com

Public Service Event

Public Service Event: Donate LIFE 5K Run/
1K Walk on Saturday April 25, 2015 at CSUF

From 0700 - 1100 hrs. or so. You will Need
Your HT. with Spare charged Battery and
earphone/Headset, seat & snack.

If you can Help out, Please send me your
Name, Call Sign, E-mail address, & Cell Phone
TO: KB6CMO@ARRL.net .

We need about 30 Amateur Radio Operators
for this event. So Please check your Calendars
and save this date and answer this request! PSE
E-mail ASAP. Thank You for your Help, GT

God Bless America & U 2

Gene Thorpe KB6CMO

FRC Mobile Transmitter Hunts

Since 1975, Fullerton Radio Club has sponsored a monthly mobile transmitter hunt. Now it's on the third Saturday of every month, beginning at 8 PM on 146.565 MHz simplex. Odometer mileages are taken at start and finish, and the vehicle with lowest elapsed mileage is the winner. Boundaries are 605 freeway on the west, Pacific Coast Highway on the south, Interstate 10 on the north, and Prado Dam on the east. This makes it a hunt where beginners can succeed and experts can be challenged. On two meters, bearings are reflected from mountains, buildings and other terrain features, so it takes some skill to know when to believe what your antenna pointer is telling you.

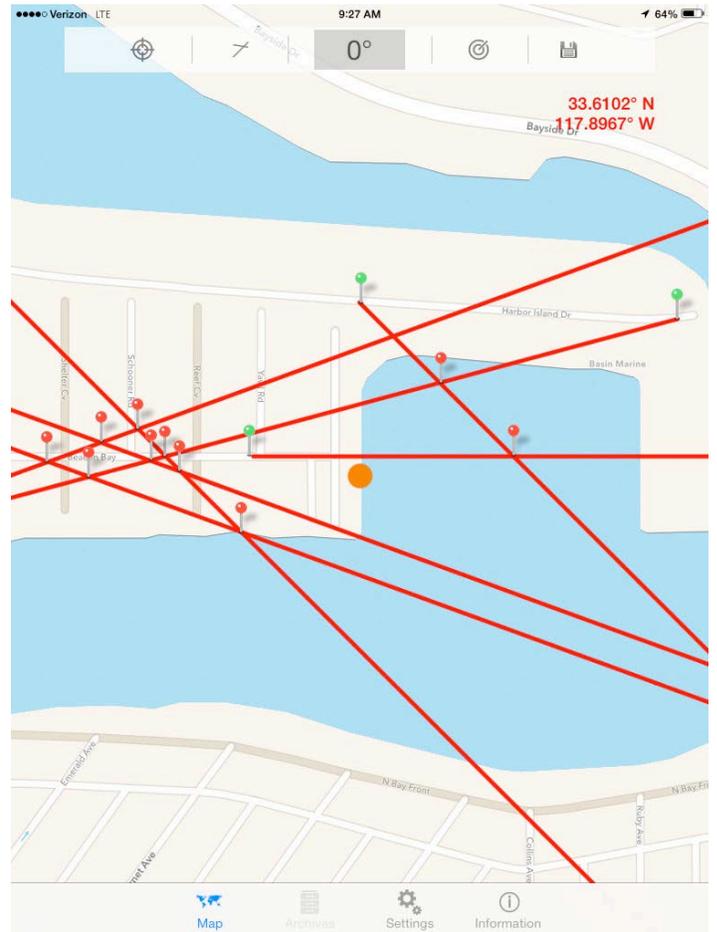
Such was the case last November, when Ron Allerdice WA6CYY put his transmitter in a parking lot off the end of Harbor Island Drive in Newport Beach, along the Balboa Yacht Basin, not far from Basin Marine (and out of bounds). He sent the signal through a beam antenna pointed toward Balboa Island, so much of the signal that reached the starting point was reflected from buildings on that island. As you can see from my computer bearing map, most of the triangulated bearing crosses (the red pushpins) were in the dense beach housing area to the west of the yacht basin. The transmitter was actually where the orange dot is at the center of the map.

Dave Balgie N6MJN won that hunt and he also won the January hunt, so he was the hider on February 21. He put his transmitter along Pacific Coast Highway in Surfside, just at the mouth of the Seal Beach National Wildlife Refuge. He ran two watts into an 11-element horizontally polarized antenna, pointed into Huntington Harbor. Here are the results:

<u>Team Calls</u>	<u>Odo Mileage</u>
N6ZHZ/KK6JDC	28.1
WA6CYY	29.2
AB6PA	32.1
N6AIN/WA6PYE	35.0

So Bob Miller N6ZHZ is scheduled to hide for the March 21 hunt. Come out to the top of Acacia Avenue in Fullerton to see what it's all about!

73,
Joe Moell K0OV



MEMBERSHIP RENEWAL / APPLICATION

Fullerton Radio Club
PO Box 545, Fullerton, CA 92836

(Please Print)

Name #1 _____	Call: _____	Class: _____
Name #2 _____	Call: _____	Class: _____
Address: _____	City: _____	State/Zip: _____
Phone #1: _____	Email #1: _____	
Phone #2: _____	Email #2: _____	

ARRL Member Yes No

Special Amateur Radio Interests: _____

Dues are \$20 per member, or \$25 per family. Students (full time) \$10

Bring your application and dues payment to the next meeting or mail to the above address.