



Smoke Signals

Newsletter of Fullerton Radio Club

March 2014

President's Message

Ahoy!! Step lively mate. The time has finally arrived. I'm off to sea aboard the Green Lake bound for the Middle East and beyond. The Green Lake is a car carrier. She's a Ro-Ro ship, and she stops in every port that has a short load of different size vehicles. This should make it especially interesting since we should see a large number of the smaller ports around the world.

With regard to Radio Club business we have a number of Public Service events coming up and I know Gene will announce these as they come up. We also have Antennas in the Park coming up on May 17. Joe will have his T-Hunt course set up and I'm sure April will have a new mystery cake from a secret cake shop located somewhere north of Diagon Alley. I should be back by June but will have to miss all the fun until then.

I need to close now since I still have some packing to do and have to be up by 0 dark thirty so I can get to LAX on time.

See you all soon. 73 for now. Bill KZ3G

March 2014 Editor's Notes

Club Membership Dues and Smoke Signals:

The Club membership year begins on January 1, and we're now into March. Review of the Club roster shows that some of the members' dues are a bit over due. Your Board of Directors has suggested that we consider linking delivery of Smoke Signals with status of dues payment. At this point in time we will continue to provide the newsletter to the existing email (and snail-mail) distribution list, but within a short time the list may be reduced to active members; those who maintain their membership status by dues payment. A membership renewal form is attached at the end of this newsletter.

Smoke Signals Article Input Request

You may have noticed that in recent months the newsletter is a bit scant in articles! It's not for lack of objective, but articles just don't materialize from thin air. We'd like to remedy this with your assistance. Numerous members and friends of the club have indicated their intent to contribute but, so far, such

input is minimal at best. If you have something to contribute we're open to receipt of your responses. Articles don't have to be extensive or even written professionally. I'll try to provide editing assistance, as appropriate.

The newsletter targets amateur radio operator interests, so articles that support this purpose are solicited. We have one such article in this month's Smoke Signals. Please consider the following for potential articles:

- Have you been somewhere and done something interesting with your radio station that could be reported?
- Do you have new equipment (or reasonably new) for which you have operational review or suggestions?
- Have you tried a new antenna: either home-built or commercial? And what has its performance been?
- Do you have thoughts or suggestions for improving your ham shack?
- Use your imagination.

If you have something to offer please send me an email. Pbroden@sbcglobal.net

Thanks. Paul K6MHD

March Meeting Presentation

"Maker Faire: Introduction Amateur Radio to a New Community"

You may have heard of the "Maker Movement"; it is a rediscovery of that which hams have known for over a century and that is all about "homebrewing" projects. Maker Faire is a gathering of "Makers" for the purpose of sharing their ideas and creations. A group of like-minded hams from all over California has banded together to present "Not Your Grandpa's Ham Radio" at Maker Faire. This presentation is our story -- who we are, what we present and what impact, if any, we have had.

by: Dennis Kidder W6DQ

Meeting: March 19, 2014. 7:00 PM
Chapman Activity Center
2515 San Carlos Dr., Fullerton

March 5, 2014 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.

The March 2014 Board meeting was called to order at 7:30 PM by Vice President, Richard Belansky KG6UDD. Other members present were: Treasurer Gene Thorpe KB6CMO, Directors Larry McDavid W6FUB, Mike LeFevre WD6AQH, Paul Broden K6MHD, and OCCARO representative Robert Gimbel KG6WTQ.

Minutes from the February Board meeting were reviewed, with discovery of a misspelling in Robert Gimbel's name. The correction was noted, and the minutes were approved.

Treasurer's Report: Checking Account, \$2608.96. Savings Account, \$3072.94. There is an additional \$105 yet to be deposited. Reminder: We are into the third month of the year, and club dues are overdue. See additional notices elsewhere in the newsletter.

Membership: We have 30 members who have renewed their membership for this year.

Old Business:

Airport Days will be held on May 10, and Gene will be looking for Hams to assist with communications. Additional information will be provided at a later date.

DonateLife walk/run will be on April 26. Gene is taking names for the event now, and needs volunteers.

There is no update on the OCCARO status.

New Business:

Dennis W6DQ will be the meeting speaker for the March 19 meeting. His topic will be a report on Maker Faire.

No other New Business was identified. Two Board members shared photographs of new grandchildren and great-grandchild.

The meeting was closed at 8:10 PM

Submitted by Paul Broden K6MHD

Treasurer's Reminder

Please Folks: WE are now in March and Our Club Dues are PAST DUE

Please pay your past dues. Some people are more that just one year behind in their FRC Club dues. So, Please Pay Your Dues NOW.

Next ARDF session at Santa Fe Dam on March 22

Santa Fe Dam Recreation Area in Irwindale will be the site of our next session of on-foot radio direction finding on **Saturday, March 22, 2014**. It is sponsored by the Fullerton Radio Club. A ham radio license and knowledge of radio equipment are not required. If you have never done on-foot RDF before, there will be some entry-level two-meter fox transmitters set by Joe Moell K0OV. Once you're proficient at finding these nearby foxes, try the 5-fox two-meter international-rules course, set by Marvin Johnston KE6HTS. It is also suitable for beginner to intermediate hunters. One or two optional 80-meter fox transmitters may also be on the air near by. 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. For those who want to build antennas and attenuators for use with their two-meter hand-held radios or scanners, we will have tools and soldering stations available. If you're not an electronic technician, don't worry because there will be experts to help you. Please note that our permit does not allow sales of parts kits within the park, so bring your own parts with you or purchase kits in advance. Send e-mail to KE6HTS (marvin@west.net) for more information about kits. If it takes place, the antenna 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. All ages are welcome, but young children must be accompanied by an adult at all times. If you will be using your handi-talkie as a RDF receiver, please make sure that you are familiar with programming it, so you can tune to the offset attenuator frequencies. Bring the manual with you if you're not sure. Santa Fe Dam Recreational Area is in the city of Irwindale, near the intersection of the 605 and 210 freeways. From 605 northbound, take the Live Oak Avenue exit and go east. From 605 southbound, take Arrow Highway exit and go east. In both cases, you will merge into Arrow Highway eastbound. The park entrance will be on your left, opposite Azusa Canyon Road. Alternately, from the 210 freeway, exit at Irwindale Avenue, go south to Arrow Highway, turn right (west) and look for the park entrance on your right opposite Azusa Canyon Road. Vehicular entrance and parking costs \$10 per vehicle. After the entry kiosk, continue to the first stop sign, turn left and go southwest along the dam. Look for

the signs for Parking Lot 2 on your right. Our gathering point will be close to the entrance to this lot. Look for the orange and white orienteering flag. Talk-in is on 146.52 MHz simplex. A map to help you find the park is at www.homingin.com. If heavy rain is forecasted, check that site for possible cancellation.

73, Joe Moell K0OV

Public Service Events for April and May, 2014

DonateLIFE Run/Walk 5K/1K – April 26, 2014 on CSUF from 0700 to 1130am or so, with a Family Festival after the Run. We need about 35 or more Amateur Radio Operators for this event. If U can Help, Please send Me Your Name, CallSign, E-mail Address, Phone Number, to: Gene Thorpe KB6CMO@arrl.net.

Fullerton Airport Day May 10, 2014 at Fullerton Airport "Open House" Event from 0700 to 1400 hrs. or so. We Need about 15 Amateur Radio Operators for this event. If U can Help, Please send Me Your Name, Callsign, E-mail Address, Phone Number, to: Gene Thorpe KB6CMO@ARRL.net.

HRO Announcement

Baker to Vegas has come and gone, but APRS continues to be of interest to those experimenting with various digital modes.

Wouldn't you like to know more about data communications? Did you know APRS radios can be used as packet digipeaters to extend the range of your VHF/UHF radios?

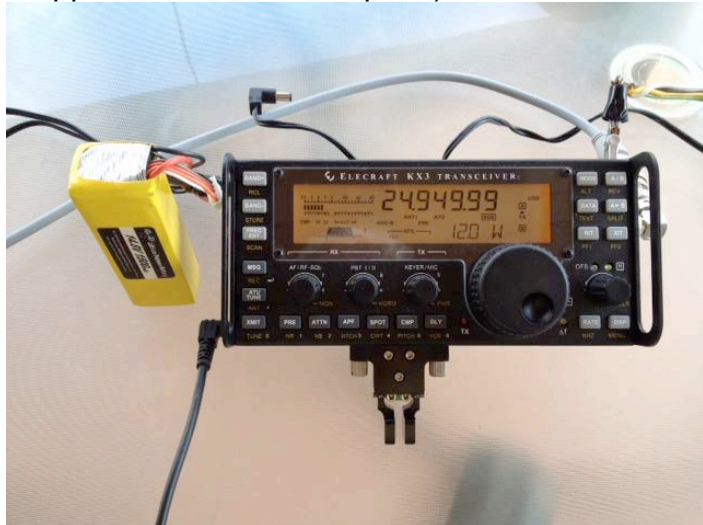
APRS allows packet radio to track real-time events, and HRO is fortunate to have as an employee Phil Pacier, AD6NH, a "retired 9-year veteran" of the Baker to Vegas Challenge Cup Relay. Phil has been continually active in APRS for years, and was instrumental in setting up the first APRS trackers on the Baker to Vegas teams.

Phil has graciously volunteered to help educate anyone who can make it into HRO-Anaheim on Thursday, April 10 for an hour at 11AM on the ins and outs of APRS. Everyone is welcome, and if successful, we will try to schedule monthly forums on various topics of interest.

Remember, that's Thursday, April 10 at 11AM. Come learn about APRS!

Belize Expedition

Tippy and I just returned tonight from Belize where I operated QRP 12W with my trusty Elecraft KX3. I was not too active as this was a vacation for the XYL also, but I worked Europe, Hawaii and all over the US as well as a few South Americans. A photo of my entire station (less the marginal end-fed 30' wire antenna dropped off the 2nd floor patio) is attached.



73, Jim V31AJ (NN5O)

[Editor's note: Jim Carmody NN5O is an FRC member, although he resides in Texas. He participated at our field day activity at Hillcrest Park a few years ago. Jim was WV6KCK and later WA6KCK from 1960-1963 when he was at FUHS and a member of FRC. He learned code at Amerige Park, went to FD on Skyline Drive every year, etc., then went East for college. He's now an attorney and arbitrator in Texas, but keeps in touch with us on a regular basis. Jim is active with the Texas DX Society, K5DX. Thanks Jim]

A Brief Update on NN5O & K0NM Remote Operation—By Nizar K0NM

While Jim (NN5O) is in Belize operating his V31AJ QRP station, I decided to check out the Remote operation during the ARRL SSB contest this weekend. The goals of this operation were as follows:

- Test the reliability of remote operation over extended period of use, as in a contest
- Compare the signal strengths of Remote versus Home rigs for DX stations
- Get a feel for advantages and disadvantages of Remote versus Home QTH operation

HOME RIG

The Home QTH rig is an ICOM 7600 with an ICOM PW-1 amplifier running at 700 watts. The antenna is a

VEE with 110 feet long legs at about 40 feet average height. The antenna is pointed in the NNE direction with a gain equivalent to a 3 element Yagi for 10 through 20 meters.

REMOTE RIG

The Remote Rig is an ICOM 7600 with a THP 1.5K amplifier running at 700 watts. The antenna is an 11 element Optibeam with 5 elements on 10 and 3 each on 15 and 20. The antenna is at a height of 50 feet and was pointed NNE for this test. The remote operation is achieved using the Remote Rig RRC devices hooked up to the Internet via a Verizon 4G LTE service. To get optimum data rates from the remote site, a Cradlepoint 4G LTE router with an external antenna is used. The Remote ICOM was controlled by TRX Manager Software for the whole time.

RELIABILITY OF EXTENDED OPERATION

I operated the Remote Rig simultaneously with the Home Rig for approximately 15 hours total and made 130 QSOs during the ARRL DX SSB contest. There were three four-hour sessions and three one-hour sessions. During the 15 hours of operation, there were NO interruptions in connection to the Remote Rig. Both the Remote Rig and the TRX Manager program worked smoothly during the contest. So, the reliability of the connection would be rated A+.

SIGNAL REPORTS

Most every contact made by Remote Rig was also monitored for signal report with the Home Rig. Because of the orientation of the antennas, most of the QSOs were with European stations. One of the most important differences in the two rigs is the background noise level. The Remote Rig is surrounded by farmland and has a noise level of less than S1. The Home Rig is located in Sugar Land and has a noise level ranging from S2 to S7.

The low noise level at the Remote Rig means I can hear European stations about one hour before the Home Rig. Whether the earlier band opening is due to a slight height difference or the lower noise, I do not know. My gut feeling is that it is due to better hearing capability of the Remote Rig location.

During the contest, I compared the signal strengths from the two rigs and found about 6-12 dB better signal strength from the Re-mote Rig most of the time. The 12 dB difference is mostly on 10 meters where the 5-element beam has a better radiation pattern than the VEE. QRM also seemed to be lower for the Remote Rig probably due to unidirectional radiation pattern of the Yagi compared to the bidirectional pattern from the VEE.

I used the Remote Rig for transmission most of the time. I did not do a direct comparison of transmitted

signal strengths from the receiving station for the two rigs. But, previous work with the two rigs suggest that the Remote Rig probably has a better signal strength consistent with the receiving signal strengths.

The average number of calls I had to make to make a QSO was approximately three. A lot of the QSOs were made with the first call from the Remote Rig and several DX stations commented on my big signal in Europe. So, I would have to rate the receiving and transmit capability of the Remote Rig as A+.

ADVANTAGES AND DISADVANTAGES

The biggest disadvantage of operating remotely is caused by the fact that there is NO rig for you to rotate the dial. All the controls are through the computer. But, it did not take very long to get used to scanning the frequency by clicking on the frequency display digit for increasing or decreasing the frequency. Once you get used to it, it is much faster to skip 100 Kcs rather than rotating the dial several times. Zeroing in on a station using the mouse requires getting used to it. Being used to the presence of a rig in front of me, I would have to grade the operation of the Remote Rig as a B.

Otherwise, the operation of the mike (and the CW keyer) is very good. They are both connected to the RRC device and operate similar to having them on the rig. There is a slight lag time when transmitting due to the delay in signal transmission from the Home

QTH to the Remote Rig. The return path for this lag time is twice the ping time and is approximately 120 ms for my system. So, I have to allow about an eighth of a second longer time before speaking into the microphone or after finishing talking on the microphone. This delay is transparent to the user when operating CW because of the built in CW keyer, which regenerates CW at the Remote Rig site. Overall rating for SSB and CW operation would be an A.

SUMMARY

I was very impressed with the operation of the Remote Rig during the contest. It worked for several hours without a hitch. I also used it during the CW contest two weeks ago and made several QSOs without any problems. In fact, most people I talk to using the Remote Rig are surprised that I am operating remotely. The audio and CW quality seem to be very good. Bottom line is that it works great.

[Editor's note: Nizar Mullani K0NM is also an active member of the Texas DX Society and a close friend of member Jim Carmody NN5O. Nizar kindly provided permission to use his article as originally published in the March 2014 edition of the **Bullsheet**, the Official News Bulletin of The Texas DX Society. Our thanks to Nizar for the article.]

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.

The next Board of Directors meeting will be held on Wednesday, April 2, 2014. As is usual, the meeting will be held at Marie Callender's restaurant on Yorba Linda Boulevard at Kraemer, in Placentia. QSO and dinner begin at 7:00 PM with business meeting at 7:30 PM. All members are welcome.