



# *The Short Circuit*

**July 17, 2015: Brian Thorson AF6NA: How Much RF is Too Much?**  
— A Look at Low-Level Radio Frequency (RF) Exposure and Current Science



If your club members haven't yet been denied a permit for an antenna tower, it is just a matter of time. And one of the arguments opponents bring up is that RF causes cancer or other diseases. Major health authorities recognize that extremely high RF fields can cause over-heating and tissue damage, but there is much misunderstanding about low-level exposure. A great deal of quality research has been completed on RF and microwave exposure in recent years, and the human health effects literature reviewed numerous times. At this point, public health agencies of leading nations agree that no convincing evidence has emerged showing health hazards from low-intensity RF or microwaves.

But not all agree. Some parents' groups have campaigned against the use of wireless internet in schools, homeowners' associations have opposed cellphone towers, and special interest groups have launched local crusades against wireless (smart) utility meters and amateur radio stations.

This talk provides high quality information on recent findings from major public health authorities and government agencies with international standing. It also looks at the opposing opinions and identifies some of the key players. All attendees will receive a list of recent health agency statements on RF and microwave exposure.

With over 18 years in public health communications, Brian Thorson is a three-time award winner for contributions to EMF and wireless fields research projects. Brian received his First-Class commercial FCC license in 1979 and his Extra-Class Amateur radio license in 2008. He is active on Amateur 10 GHz and operates on the HF, 2m, 220 and 440 MHz bands.

## FIELD DAY 2015



### Field Day:

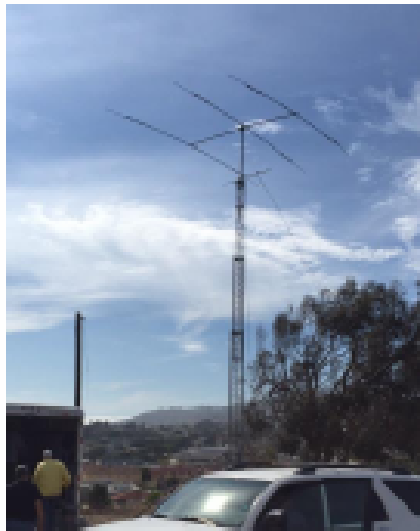
K6AA (2 transmitters) did 204 SSB QSO's, 1345 on CW, and 15 on VHF.

5,818 points + 1250 bonus points = 7,068 total points

## An informal report on Field Day 2015 by FD Chairman Scotty K6ZNL



The photo opposite shows the main site issue of 2015 Field Day Weekend; and for those of you who did not get the chance to operate, log, set up or take down, or (definitely) eat with us...the WIND was the main story. This is the set up for the one phone station. It consisted of an 'easy-up' roof, and several tarps on the sides to block the wind. Please note the rocks on the bottom to hold down the tarps. You should also know that the ribs of the easy-up were secured by aluminum stakes, driven into the ground and secured to the ribs by electrical wire. The whole was designed and erected (most of us helped) by Nick, N6EFL. During Saturday afternoon on the site, there were several very strong wind gusts...the structure held up fine. Inside was my FT-840, with no bells, no whistles, but good performance with the help of Nick's antenna tuner. The antenna for this lash up was a Windom, hung between two trees on the site. This year, the antenna height was only about 15-20 ft.



The CW station had no wind problems as it was installed again into the back of a rental truck (works great). But notice the jackets on the smiling faces...it was COLD. The cold didn't stop the CW team, however. They racked up 1345 QSO's! (Most notably missing from the CW photo is Steve, K6NT the other CW Team Chair with Ray, N6HE, and Rich AA6VX, who worked the night shift)



Gina KF6MYQ did a great job on the food again...subway sandwiches for lunch and pizza for dinner with lots of water, coffee and snacks in between. The food was a high point of the weekend.

### Stats:

- Members signing in: 18
- Visitors signing in: 17
- CW QSO's : 1345
- Phone QSO's: 219
- Bonus Points Claimed: 1,250
- Total Points Claimed: 7,068

And yes, we do need to work on the Clubs antenna tower...it could become a club hands-on project.

## *URAC's VE Corner ... Gary N6HMR*

In June we administered several Amateur General exams. If you've been studying to take the General Class exam using the 2011-2015 question pool, keep studying ... and look over the 2015-2019 question pool. Effective July 1st, the old exam pool has expired. When you're ready, please let club president Bill W6AJ or myself know and we'll put an exam team together for you.

Many thanks to our VEs and CEs for your participation. Without the volunteer help, these exams would not be possible. And our continued thanks to Marifrances for making the Brass Room available; a very quiet, comfortable environment for testing.

## *HamShield turns an Arduino into a VHF/UHF transceiver ...* *... Dan Romnanchik KB6NU*

The Arduino seems to be making a big splash in ham radio circles these days. The ARRL has recently published a couple of books about the Arduino and Arduino-based amateur radio projects. And, recently, I purchased a NanoKeyer ([nanokeyer.wordpress.com](http://nanokeyer.wordpress.com)), which is a CW keyer powered by an Arduino Nano.

Now, a couple of enterprising young hams have built the HamShield (<https://www.kickstarter.com/projects/749835103/hamshield-for-arduino-vhf-uhf-transceiver>). It's an Arduino shield that turns an Arduino into a VHF/UHF transceiver. With the HamShield, you can transmit and receive on the 2 m, 220 MHz, and 440 MHz bands.

According to Casey, KC7IBT, one of the project leaders, "We have both voice and data working on the shield right now and also have a powerful library to control it."

"We also have it talking to the Chrome browser, so any computer that can run a web browser can operate a packet radio station or voice station. We also have another piece of chrome software called "APRS Messenger", a text messaging app for APRS. One of our prototypes is in a neat little case that clips right to the back of your laptop (shown in the video). I will launch these apps in the Chrome Store once we get closer to completion.

"We have 10 working prototypes currently, but need to raise money to fund the production cost and get the unit prices down to acceptable levels. This means buying parts in bulk and reducing production costs."

I think this is a very cool project, and I hope that you'll consider supporting the HamShield Kickstarter project. I plan to get one and see what I can do with it.

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When not playing with Arduinos, Dan operates CW on the HF bands and blogs about amateur radio at [KB6NU.Com](http://KB6NU.Com). He is also the author of the "No-Nonsense" amateur radio license study guides. His most recent book is The CW Geek's Guide to Having Fun with Morse Code. The books are available on his website or on Amazon.



Saturday, July 11 will be a day of ham radio fun at Ham Radio Outlet in Anaheim from 10AM-5:30PM.

Join us and various manufacturer representatives, Gordon West, the Red Cross, Orange County RACES, Hospital Disaster Services, local clubs, and other experts who will be showing us “what’s new in ham radio” from C4FM digital to an antenna analyzer with a full color TFT LCD screen. See a 200w mobile HF installation in a Smart Car, and compare notes about what you learned at Field Day this year.

There will be three prize drawings throughout the day, and hot dog lunches to keep you fortified. We will offer license testing for all classes from 11AM to 3PM (be sure to call or email the store for reservations.)

Come join us to learn, to see and be seen, to laugh, to eat, and completely enjoy a day filled with everything ham radio.

**UNITED RADIO AMATEUR CLUB JULY / AUGUST CALENDAR**

~ July 2015 ~						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 URAC Weekly Net 145.380; 8 pm	3	4 Independence Day
5 First Saturday Breakfast, Think Café, 8 am	6	7	8	9 URAC Weekly Net 145.380; 8 pm	10	11
12	13	14	15	16 URAC Weekly Net 145.380; 8 pm	17 URAC Club Meeting, LAMM, 7 pm	18
19	20	21	22	23 URAC Weekly Net 145.380; 8 pm	24	25
26	27	28	29	30 URAC Weekly Net 145.380; 8 pm	31	

~ August 2015 ~						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						15 First Saturday Breakfast, Think Café, 8 am
2 International Friendship Day	3	4	5	6 URAC Weekly Net 145.380; 8 pm	7	8
9	10	11	12	13 URAC Weekly Net 145.380; 8 pm International Left- Handers Day	14	15
16	17	18	19	20 URAC Weekly Net 145.380; 8 pm	21 URAC Club Meeting, LAMM, 7 pm	22 Lighthouse/Lightship Weekend
23 Lighthouse/Lightship Weekend	24	25	26	27 URAC Weekly Net 145.380; 8 pm	28	29
30	31					

**Two Free Amateur Radio Courses**

FCC "**Technician**" course (entry level)

FCC "**General**" course (2<sup>nd</sup> level)

Each course is 2 sessions

The sessions will be on 25 July & 1 August 2015

**Technician** 9:30 AM to 1:30 PM both Saturdays (bring your lunch)

**General** 1:30 PM to 5:00 PM both Saturdays

The FCC tests will be 10:00 AM to noon on 8 August 2015

At the start of the 25 July Technician course, the Palos Verdes Amateur Radio Club will give a 30 minute presentation on how to get further involved with amateur radio.

The location is the Fred Hesse Community Park,  
29301 Hawthorne Blvd., Rancho Palos Verdes.

**Confirm your attendance to Walt, K1DFO at [waltordway@juno.com](mailto:waltordway@juno.com)**

There is no fee for either course.

Taking the FCC test is \$15.

**Optional Material (sold at cost)**

Gordon West books with all the FCC test questions,

\$22 for the Technician and \$26 for the General

- Paper copy of my Power Point charts,

\$20 for the Technician and \$20 for the General -

For courses sponsored by the Palos Verdes Amateur Radio Club, students thru grade 12 who pass their examination at a PVARC VE test session will, upon application to the Club, be eligible for reimbursement up to a maximum of \$50 to cover the cost of materials and the examination fee.

Everyone who obtains their first ham radio license through a PVARC VE session, regardless of age, will receive a free membership in the Palos Verdes Amateur Radio Club for the remainder of the current calendar year.

## DX OPERATIONS FOR JULY 2015 Per NG3K

Republic of Congo, TN: Is now operating thru 7/19/2015. QSL via CT1FJZ.  
St Kitts & Nevis, V47JA: Is now operating thru 7/22/2015. QSL via W5JON.  
Dominica, J79XE: Is now operating thru 7/10/2015. QSL via WB4WXE.  
Galapagos Is, HC8: Is now operating thru 7/14/2015. QSL via HA3JR.  
Haiti, HH2TD: Is now operating thru 7/13/2015. QSL via K7TD.  
So Cooke Is, E51AGY: Is now operating thru 8/1/2015. QSL via ZL2AGY.  
Cayman Is, ZF2LL: Is now operating thru 7/12/2015. QSL via W6NN.  
Seychelles, S79OWZ: Is now operating thru 7/18/2015. QSL via RX3RC.  
Montserrat, VP2MLU: Is now operating thru 7/17/2015. QSL via W4LT.  
Crete, SV9: Is now operating thru 7/19/2015. QSL via S55OO.

Svalbard, JW: Will be operating from 7/20 thru 7/17/2015. QSL via G3ZAY.  
Cuba, T40HQ: Will be operating from 7/8 thru 7/12/2015. QSL via OH2TA.  
Cyprus, C4HQ: Will be operating from 7/11 thru 7/12/2015. QSL via 5B4KH.  
Market Reef, OJ0S: Will be operating from 7/11 thru 7/18/2015. QSL via OH0NA.  
St Pierre & Miquelon, FP: Will be operating from 7/15 thru 7/21/2015..  
Djibouti, J20JM: Will be operating from 7/15 thru 9/15/2015. QSL via F5LCI.  
Seychelles. S79HN: Will be operating from 7/16 thru 7/20/2015. QSL via 7K4QOK.  
Iceland, TF: Will be operating from 7/15 thru 7/21/2015. QSL via JA0JHQ.  
Antigua & Barbuda, V29SH: Will be operating from 7/28 thru 8/8/2015. QSL via VE6SH.



<i>2015 U.R.A.C. Executive Board</i>			
PRESIDENT Bill Carter W6AJ		VICE-PRESIDENT Unfilled	
SECRETARY Tom Butler KJ6JPZ		TREASURER Scotty Butler K6ZNL	
DIRECTOR Richard Requa KB6FLF		DIRECTOR Homer Meek K6HKT	
DIRECTOR John Rockwood WA6SDK		DIRECTOR Don Putnick NA6Z	
		Past President Jim Jerzycke KQ6EA	

**Contact List**  
*For 2015*

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**Secretary**

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**Treasurer**

Scotty Butler, K6ZNL  
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**Vice President**

unfilled

**Newsletter Team**

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Jim Jerzycke, KQ6EA  
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[kq6ea@verizon.net](mailto:kq6ea@verizon.net)

**Webmaster**

Duane Cassone, W6ADC.

**\*\*\* IMPORTANT NOTES \*\*\***

**K6AA Station** We can still use more operators for our K6AA station. See Doug, W6HB, and or Scotty, K6ZNL, checkout and training.

Check out the special events page on the website for the latest from arrl and e-ham net:

<http://www.k6aa.org/specialevents.html>

***Additional Calendar Notes*****Club Net**

Held weekly on Thursdays at 8pm  
Primary = WA6LA repeater  
(145.380; -600; PL 100)  
If the repeater is unavailable, our Net  
will use the repeater output (145.38)  
on simplex.

**Club Meeting**

Held monthly on 3<sup>rd</sup> Friday of the  
month (except August and December)

**No Host Breakfast**

Held monthly on the 1<sup>st</sup> Saturday of  
the month at 8:00am. Location:  
Think Café on 5<sup>th</sup> Street in San Pedro

**“VE/CE Session for Amateur and Commercial Licenses**

Monthly on 1<sup>st</sup> Saturday and 3<sup>rd</sup> Sunday. **By appointment.** Go to <http://k6aa.org/index.php/menu-licenseexams>”



United Radio Amateur Club  
 Newsletter Editor  
 Los Angeles Maritime Museum  
 Berth 84, Foot of Sixth Street  
 San Pedro CA 90731  
 33° 44' 20" N 118° 16' 39" W

Place  
 Stamp  
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ADDRESS CORRECTION  
 REQUESTED