



September 2015

ARCOver

A Community Service Organization Dedicated to Amateur Radio Since 1970

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ARRL
SW Division Convention
Ham Radio
A Bridge To
The Future

Torrance, CA

HAMCON 2015

MEET FELLOW HAMS FROM ACROSS THE SOUTHWEST.

HAMCON 2015
The ARRL 2015 Southwestern Division Convention returns to the Los Angeles area and explores Amateur Radio's second century.
September 11-13, 2015

E-mail: W6SBA@arrl.net



Website: <http://www.w6sba.org>

Hi all:

I have decided to largely re-run last month's message: here it is.

Our next big club activity is Hamcon which takes place on September 11th through the 13th at the Torrance Marriott Hotel on Hawthorne Blvd. Your Council member Jerry, KJ6JJ, is in charge of the activity. As you are probably aware by now, we are responsible for the W1AW station and the "call-in" station which is used to guide amateurs to the hotel where the event is held. This means that we need people during operating hours to check in operators and to operate the radio when none of the convention attendees is using the station. Many people want the chance to talk to W1AW and get a QSL card for doing so. In addition to this, we need folks to help move equipment from Joe's QTH to the hotel Friday morning and to help set it up and then to take it down and return it to Joe's Sunday afternoon. This will be a far easier task than was Field Day but we still need workers for set-up and take-down. W1AW will be operating from about 11:00 Am to 7:00 PM on Friday, from 8:00 AM to 7:00 PM on Saturday, and from 8:00 AM on Sunday until noon. So, besides set-up and take-down, we need people to man the station. We would like to have two hour shifts but we will probably not have enough volunteers for that so shifts probably be four hours long. We need at least two people for each shift so that means that we need a minimum of twelve people to operate the station. I've done it at the past few Hamcons and it is surprisingly fun. So, expect some serious arm twisting at this month's meeting as we must operate the station during its open hours.

For those of you who don't know how Hamcon works, it is (we hope!) a profit making enterprise. The SBARC, in concert with other clubs, put on the Hamcon as a joint effort. When it is over, we all share equally in the profits, if any. So, we are not volunteering our time to Hamcon. Rather, we are paid for it. The money we have made from past Hamcons has helped enable us to purchase much of the club equipment that we all enjoy using. We need more people to help us man the W1AW and call in stations. We are only asking for a two hour commitment of your time and you do not need to be registered with Hamcon to participate.

Please contact Jerry if you are able to help. He can be reached at jcookggca@aol.com - 714-898-3983.

In other news, we have been asked to participate in JOTA again this year as we have anticipated. While details are still hazy at this point in time, it looks like they want us to support the effort at the Cabrillo Boy Scout location again. It looks like we will provide a vhf/uhf Echolink operation for the afternoon only. That's it for this month. Finally, if you are going to the Hamcon banquet, we would like to sit together as a club, so look for other members. We can make plans at the W1AW station on Saturday. See you at Hamcon!

Alan

CLUB OFFICERS FOR 2015

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chohn@socal.rr.com - 310-324-9561

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Bruce Jackson - KK6BJ
bjackson@ucla.edu - 310-502-0071

Activities Council Member

Jerry Cook - KJ6JJ
jcookggca@aol.com - 714-898-3983

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Alex Marko - KD6LPA
kd6lpa@socal.rr.com - 310-530-6614



September 17th - 7:30 p.m.

**Torrance Memorial Med Center
West Tower, 2nd Floor, Room A**

Sidewalk EME

By Doug Millar K6JEY

The talk is about how I developed 144 and 1296MHz EME stations at home that had the antennas on the driveway and the electronics in the garage. This is a very practical talk with an eye to giving viewers a realistic view of what it takes and what needs to be done to get on EME and work a variety of stations. It is simpler than it seems and more challenging than we thought. Therein lies the tale.

Doug Millar K6JEY- I have been a ham since 1957 and have been doing EME since 1990. I am also the ARRL Technical advisor in Metrology, having written the 26th chapter in the ARRL Handbook on that subject. I particularly enjoy HF CW, AM and boat-anchors, and microwaves. I have radios on bands up to 122GHz. I hold an EdD in Educational Technology and am a semi-retired professor.

Doug looks forward to sharing his knowledge. Come here him speak at the September meeting.

FCC Releases Online Table of Frequency Allocations

The FCC released an updated online, downloadable Table of Frequency Allocations on August 15. The FCC notes that the Table "as published by the Federal Register and codified in the Code of Federal Regulations, remains the legal source material." The online Table may display amendments that have been adopted by the FCC but are not yet in effect, the FCC said. *ARRL Letter, August 20, 2015*



1) Many people were tested for throwing accuracy and 100 were found to be accurate throwers. Of these, 30 could throw accurately with their left hand and 10 could throw well with either hand. How many could throw well with their right hand?

2) Several of the fifty US states share a letter with all of the states' names. Of these, which has the shortest name?

3) What English word contains all of the vowels in alphabetical order?

4) Tom and Bruce both have some transistors. If Tom gives one of his to Bruce, they will have the same number but if Bruce gives one of his to Tom, Tom will have twice as many as Bruce. How many did they each start with?

Answers to August's quiz

1) Suppose a runner goes up a two mile hill and turns around and runs back without pausing at the top. His average speed for the trip is 10 miles per hour. How long did it take him to do it?

The runner runs four miles at an average speed of ten miles per hour. So, distance = rate x time or 4 miles = 10 mph x time or 4 miles / 10 m/hour = time = 2/5 hour or 24 minutes.

2) 100 people were tested for ball throwing accuracy. 30 could throw accurately with their left hand and 10 could throw well with either hand. How many could throw well with their right hand? This question was poorly phrased and cannot be solved as stated. It will be repeated this month. Thanks to Alex for pointing this out to me.

3) What has 3 feet and nothing else? ***A yard stick.***

4) Billie was born on December 28th, yet her birthday always falls in the summer. How is this possible? ***Billie lives in Australia where the seasons are reversed.***

Please send answers, questions, and comments to Alan at thermic72@sbcglobal.net

FOX-1A SATELLITE MATED TO LAUNCHER, FOX-1B GETS A RIDE

AMSAT has reported that its Fox-1A CubeSat has been "mated" to the Centaur rocket in preparation for launch late next month from Vandenberg Air Force Base in California. NASA also alerted AMSAT on August 3 that the Fox-1B

(RadFxSat -- Radiation Effects Satellite) CubeSat has a ride on a Delta II launcher with a NOAA spacecraft, due to go into space in late 2016. The availability arose because other CubeSats had dropped off the flight manifest.



Both satellites will go aloft as part of the NASA Educational Launch of Nanosatellites (ELaNa) program, which offers free launches to educational entities and encourages science missions. AMSAT has been developing a family of CubeSats with Amateur Radio payloads that can support advanced science experiments, and it has been working with universities on scientific and educational missions that fit the ELaNa mold.

The Fox-1A satellite will include a Mode B (U/V) FM transponder with an uplink frequency of 435.180 MHz, and a downlink frequency of 145.980 MHz and capabilities similar to those of the AO-51 satellite, which went dark in late 2011. Fox-1B also will offer a Mode B FM transponder (435.250 MHz up/145.960 MHz down, pending coordination).

The first phase of the Fox series 1-Unit CubeSats will allow simple ground stations using handheld transceiver and simple dual-band antennas to make contacts.

-- Thanks to AMSAT News Service via AMSAT Vice President-Engineering Jerry Buxton, N0JY and NASA

AMATEUR RADIO VANITY CALL SIGN FEE TO DISAPPEAR IN SEPTEMBER

The Amateur Radio vanity call sign regulatory fee is set to disappear in the next few weeks. According to the best-available information from FCC sources, the first day that applicants will be able to file a vanity application without

having to pay a fee is Thursday, September 3. In deciding earlier this year to drop the regulatory fee for Amateur Radio vanity call signs and General Mobile Radio Service (GMRS) applications, the FCC said it was doing so to save money and personnel resources. The Commission asserted that it costs more of both to process the regulatory fees and issue refunds than the amount of the regulatory fee payment.

"Our costs have increased over time, and now that the costs exceed the amount of the regulatory fee, the increased relative administrative cost supports eliminating this regulatory fee category," the FCC said in its Report and Order, which appeared on July 21 in The Federal Register. "Once [it's] eliminated, these licensees will no longer be financially burdened with such payments, and the Commission will no longer incur these administrative costs that exceed the fee payments." In 2014 the FCC raised the Amateur Service vanity call sign regulatory fee from \$16.10 to its current \$21.40 for the 10-year license term. The \$5.30 increase was the largest such fee hike in many years. In a typical fiscal year, the FCC collected on the order of \$250,000 in vanity call sign regulatory fees.



Thursday Night Net
@ 7:30 p.m.



Please join us on W6SBA 224.38 minus offset and the PLat 198.2 hz you can share your experiences or just say hello!

FCC Proposes Fining Georgia Ham \$1000 for Failing to Identify

The FCC has proposed fining a Georgia ham \$1000 for alleged failure to properly identify. David J. Tolassi, W4BHV, had been warned last August about not following the Commission's Part 97 ID rules. The FCC said his "deliberate disregard" of that warning warranted the proposed penalty.

"Mr Tolassi...has a history of failing to comply with the rules governing the Amateur Radio Service," the FCC said in a July 22 Notice of Apparent Liability for Forfeiture (NAL). As the NAL recounted, agents from the FCC's Atlanta Office used direction-finding techniques to track the source of a signal on 14.313 MHz to Tolassi's residence in Ringgold, Georgia.

"The agents monitored and recorded transmissions during which Mr Tolassi failed to transmit his assigned call sign," the FCC said. "The agents interviewed Mr Tolassi later that evening, and, while he admitted operating that evening, he denied making the unidentified transmissions."

Nonetheless, the FCC determined that Tolassi "apparently repeatedly violated Section 97.119(a)" of the rules. The Commission pointed out that it could have assessed a forfeiture of \$16,000 a day for a continuing violation, but it settled on a \$1000 fine. ARRL Letter, July 30, 2015

HAMCOM Exhibit Hall Vendors

Embroidery In Motion	Icom
Wired Communications	Alinco
Algoram	Western Case
M2 Antennas	Radio Sport
Buddipole	RT Systems
Byonics	Ham Radio Deluxe
DC Power LLC	N6BT.com
Hi-Tech Liquidators	Ham Radio Outlet
Flex Radio	Palomar Engineers
AOR USA	Yaseu
NCG- Comet Antennas	Elecraft
Impulse Electronics	Alpine Antenna
ABR Industries	Powerwerx
Kenwood	HIP Ham Shirts
22 Crew	QSL Concepts
Rescue Tape	Ham Test Online
Elk Antenna	LIDO Mounts
Nifty Ham Accessories	
Expert Linears America LLC	and more

HAMCON 2015 - CONVENTION SCHEDULE

Friday, September 11:

1300-1800: Registration Desk open

1300-1900: Operate W1AW/6 Special Event station

1500-1700: Tech Talks

1600-2000: Vendor/Exhibitor Hall open

1930-2100: Mixer Get-together

Saturday, September 12:

730-1800: Registration Desk open

800-1900: Operate W1AW/6 Special Event station

800-1700: Vendor/Exhibitor Hall open

800-1900: Amateur radio license exams

900-1200: Tech Talks

1200-1300: Luncheon w/special presentation

1300-1700: Tech Talks

1900-2100 Banquet w/special presentation

Sunday, September 13:

800-1000: Registration Desk open

800-1200: Operate W1AW/6 Special Event station

800-900: Breakfast w/special presentation

900-1200: Vendor/Exhibitor Hall open

900-1100: Tech Talks

1200-1215: Special re-drawing for all unclaimed Door Prizes

1300-1500: "Fox Hunting" (hidden transmitter hunt, location TBD)

RF Filters: Part 7

By Alan, KG6ZPL

Last month I wrote: Inductors pass low frequencies while capacitors pass high frequencies. So, if you see a filter (or part of a filter) which has the inductors going to ground, the filter passes the high frequencies. Conversely, if the capacitors are grounded, the low frequencies are passed. This seemed confusing to some so I will begin by explaining a bit more. If the inductors are connected to ground, then the low frequencies which are passed by the inductors will be grounded leaving the high frequencies to pass on to the load. Conversely, if the capacitors are connected to ground, then high frequencies are grounded leaving low frequencies to pass on.

This month we will continue with our review of resonant circuits. Last month we defined resonance and “Q” and looked at series resonant circuits. We will now look at parallel resonant circuits. Figure 1 shows a typical parallel resonant circuit.

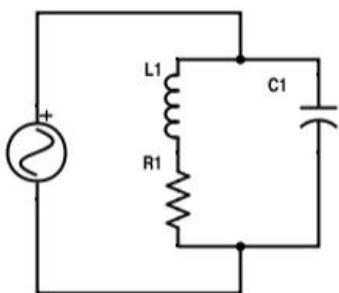


Figure 1: Parallel Resonant Circuit

The resistance is shown in series with the inductance because most of the circuit resistance is found there. So, how do series and parallel resonant circuits compare? The major difference is in the impedance that the resonant circuit shows. In a series resonant circuit, the impedance is minimum at resonance. This means that the current in the circuit is maximum at resonance. The opposite is true of a parallel resonant circuit. Impedance is maximum at resonance so circuit current is at a minimum. In fact, a graph of a parallel resonant circuit's current response versus wave length looks very similar to the frequency response of a series resonant circuit. We get a sharp response at high Q and a broad response at low values of Q as shown in figure 2.

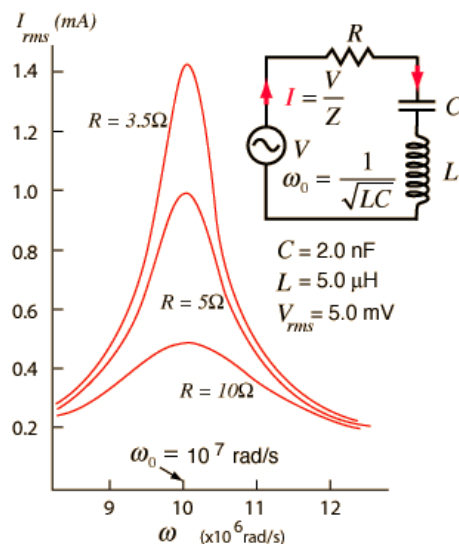
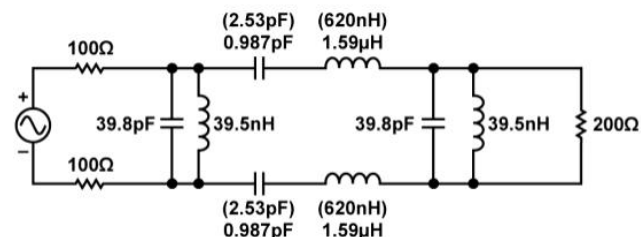


Figure 2: Current Response of a Parallel Resonant circuit at Various Values of Q

Note also that the peak value of current goes up as does Q. To summarize: In a high Q parallel resonant circuit selectivity is high, bandwidth is narrow, impedance is high, and total (as opposed to peak!) current is low; in a low Q circuit, selectivity is low, bandwidth is wide, impedance is low, and total current is high. I am not going to explain the details here but parallel resonant circuits can also be used to match impedances. This is what is going on in your antenna tuner.

Next month we will get to the basics of band pass filters. For the meantime here is some homework. Look at the following figure 3. Why is it a band pass filter and what is the center frequency of the



pass band?

Figure 3: A Band Pass Filter.

Please send comments and questions to Alan at thermic72@sbcglobal.net



1. **Attendance drawing:** Another name drawn at our August meeting was not present. Glenda-KF6QFE was the lucky name drawn. Unfortunately not present. The drawing for our September meeting will have 30 dollar for the lucky member present. Remember you must be a member in good standing and be present. Thank you.

2. **Thank you:** The presentation made by Jerry-KJ6JJ was fantastic I am sorry I missed it myself. From all reports I've been given it was certainly well enough attended. The subject of Jerry's talk was SRD (Soft ware Defined Radio) which is the future of all our radio equipment. While us Old Folks (I include myself in that as well) have enough trouble with menus etc etc we now find ourselves looking at radio's doing everything for you except sleep. Of course Jerry talked about dongles and other devices which are now available as well. These are inexpensive interfaces that allow computer processing to decode the many embedded digital signals, as well as the voice and other information encoded in all commercial radio now . You really missed an great presentation including myself. Thank you Jerry.

3. **Convention:** We hope you took advantage of the Early Bird registration, of course tickets are also available at the door. Be sure to stop by the exhibits from the big as well as small providers and present day as well as more aged providers. The new equipment is all very interesting but seems to require you to have an Engineering Degree to operate. So please stop by our stand which is the W1AW/6 station by the parking structure just East of the convention area. If you've signed up with Jerry you will exactly know where we are set up. Lot of Tech talks you can attend as well and so it will have everything under the sun. Please enjoy your experience with this Convention..

4. **JOTA:** Yes we have been invited again to the Cabrillo Boy Scout facility in San Pedro. We will need some help with that on October 17th. I am not sure just yet what kind of involvement we will provide for a large number of Boy Scouts but detail are being worked out. We might scale down our involvement somewhat but I certainly hope that we will take advantage of this opportunity to show these JOTA participants what this is all about.

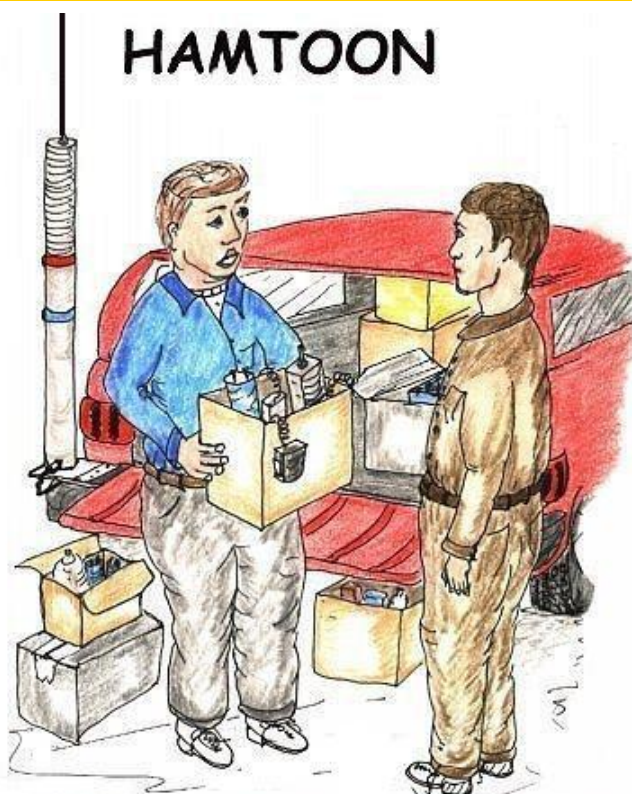
5. **Jacket and shirts:** I will have contacted each one of you having requested an jacket, polo shirt or hat as soon as I receive the items from our vendor. Please be sure to be prepared to pay it as COD since we will also have to pay this at the time of pick up. Thank you.

6. **Thank you:** Yes I have another thank you for Alan-KG6ZPL this time. You know he goes through a lot of trouble to make the columns so informative as well as fun for us now on a monthly basis. Please thank him next you see him. You know I am talking about the Quiz Column as well as some very interesting RF Filters articles he has been putting together for us. So thank Alan for all your hard work in those corners.

7. **Thank you:** I don't know about you but our monthly Arc Over is just great. It is actually fantastic and we Glenda-KF6QFE to thank for that. Besides being a busy mom and XYL she too has a job which is school related and while summer vacation is just about over she now will have to get to work to again. We are so lucky to have her do our monthly news letter. The dedication in providing us with as far as I am concerned top notch news letter is beyond the call of duty. So thank you Glenda, please thank her the next time you see her as well. Joe-WB6MYD

8. **Recovery time:** Ray-WA6OWM has had surgery and is home recuperating. Please drop him a line an keep him busy with physical Therapy being the best medicine. We wish him a speedy complete recovery of course. Hope his surgery was as satisfactory as he expects it to be so we can and will see maybe a little more of him being able to dance now and all that (he could not before you know I think).

Best wishes form us all. Joe, WB6MYD



THIS WAS THE BEST HAM FEST, LOOK AT THESE GREAT BUYS. COULD YOU STORE THEM FOR ME TILL MY WIFE IS OUT OF TOWN ?

CALENDAR

Council Meeting - 1st Wednesday of the month
Call Joe - WB6MYD (310) 328-0817

Club Meeting - 3rd Thursday of the month
September 17, 2015 - 7:30 p.m.
Torrance Memorial Med Center
West Tower, 2nd Floor, Room A

Club Nets - **W6SBA WEEKLY NET**
Every Thursday @7:30pm
(except the night of club meetings)
PVUSD EMERGENCY NET
1st Tuesday of the month
09:30 Hours on the W6SBA repeater

TRW Swap Meet Saturday,
September 26, 2015 , 7-11 a.m.

VE Session - Contact: Joe WB6MYD
Phone: (310) 328-0817
jmlanphen@gmail.com or w6sba@arrl.net

Social Event - Contact: Joe WB6MYD
Phone: (310) 328-0817
jmlanphen@gmail.com or w6sba@arrl.net

CLUB SERVICES

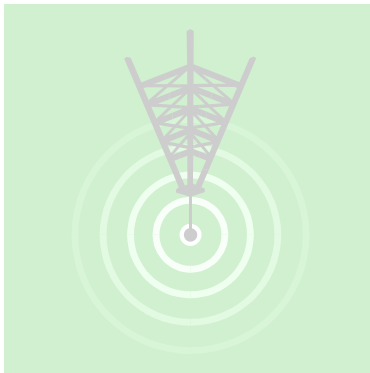
Awards Manager (HF/VHF)	Cliff - K6LH
Health & Welfare	Joe - WB6MYD
Swap Meet Chair	Joe - WB6MYD
VE Test Liaison	Joe - WB6MYD
VE Test Sessions	Joe - WB6MYD
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South Bay Amateur Radio Club Repeater
224.38 MHz · PL - 192.8 Hz Offset -1.6 MHz
(See Calendar for Weekly Net Times)

NEWSLETTER SUBMISSION

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Address Correction Requested

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