



February 2014

ARCOver

A Community Service Organization Dedicated to Amateur Radio Since 1970

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Happy
Valentine's
Day



We
Love

Amateur Radio!

E-mail: W6SBA@arrl.net



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

Hello W6SBA,

Field Day preparations are in progress. As I mentioned in last month's ArcOver, the club is investigating a new site for this year Field Day. We would still be operating at Torrance Memorial Hospital, but would be using the EAST parking garage (highlighted below as NEW SITE). One of the advantages of this site is greater visibility to the horizon, except for due North. But since the majority of the continental U.S. is East of us and a little North, this location gives us open coverage we're looking for and will hopefully help us boost our scores this year! We're also deciding whether we want to be a 2A or a 3A class this year. Please come to the February club meeting with your opinion!

Earlier this year, Tom – KI6RC demonstrated how to make contact with a satellite with an HT turned upside down (so the antenna is pointing to the ground). He successfully made 3 contacts in a matter of minutes! We want to put together a satellite BBQ session for an upcoming Saturday so we can share his knowledge with the rest of the club! Look for the event coming up in March or April!

Until next time,

This is Alex saying 73.



CLUB OFFICERS FOR 2014

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Information Council Member

Steve Wojtak - KJ6VWN
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Past President

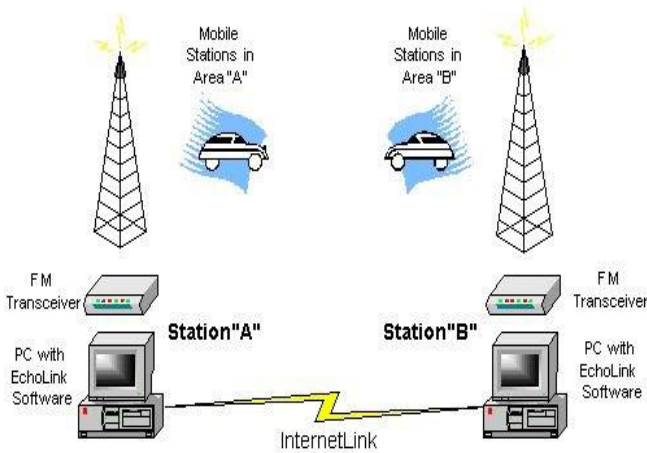
Alan Parks - KG6ZPL
thermic72@sbcglobal.net - 310-558-8718



Thursday, February 20th at 7:30 p.m.

Gerald (Jerry) Cook, KJ6JJ

Topic: Echolink



EchoLink[®] software allows licensed Amateur Radio stations to communicate with one another over the Internet, using streaming-audio technology. The program allows worldwide connections to be made between stations, or from computer to station, greatly enhancing Amateur Radio's communications capabilities. There are more than 200,000 validated users worldwide — in 151 of the world's 193 nations - with about 5,200 - online at any given time.

Please come join us to hear Jerry's useful information on Thursday.



Palm Springs HamFest is being hosted by these two clubs:



Palm Springs DX Club - KQ6L

For more information go to: <http://palmsspringshamfest.com/>



The South Bay ARC will be hosting a 'Get Radio-Active' Picnic on **March 8th at De Portola Park**. We will have a satellite session headed by Tom, KI6RC and the usual radio setup for 10/15/20 meter phone contacts. The club will be providing refreshments (chips and soda) and we encourage people to bring a sack lunch. The event will be from 10:00 am - 3:00 pm. Come join us in our first club activity for the season and make some contacts!

James, KI6UPL



PALM SPRINGS HAMFEST 2014

PALM SPRINGS PAVILION, 401 S. PAVILION WAY, PALM SPRINGS, CA 92262
MARCH 15, 2014

ARC QUESTION OF THE MONTH



Ray, WA60WM, had inquired about band restrictions still in place for holders of Novice class licenses. I expanded this to all classes of licenses. Last month we looked at HF band privileges. This month we are looking at restrictions on the VHF/UHF bands.

Novice/Technicians are limited to 200 watts PEP on HF bands. Geographical power restrictions apply to the 70 cm, 33 cm and 23 cm bands; see *The FCC Rule Book* for details.

6 Meters

All Amateurs except Novices:

50.0-50.1 MHz: CW Only

50.1-54.0 MHz: CW, Phone, Image, MCW, RTTY/Data

2 Meters

All Amateurs except Novices:

144.0-144.1 MHz: CW Only

144.1-148.0 MHz: CW, Phone, Image, MCW, RTTY/Data

1.25 Meters

The FCC has allocated 219-220 MHz to amateur use on a secondary basis. This allocation is *only* for fixed digital message forwarding systems operated by all licensees except Novices. If you desire to operate here, it is advisable to look at Section 97.303(e) of the FCC Rules as there are numerous restrictions on the use of this band segment.

Novice (Novices are limited to 25 watts PEP output), Technician, General, Advanced, Amateur Extra classes:

222.00-225.00 MHz: CW, Phone, Image, MCW, RTTY/Data

70 Centimeters

All Amateurs except Novices:

420.0-450.0 MHz: CW, Phone, Image, MCW, RTTY/Data

33 Centimeters

All Amateurs except Novices:

902.0-928.0 MHz: CW, Phone, Image, MCW, RTTY/Data

23 Centimeters

Novice class:

1270-1295 MHz: CW, phone, Image, MCW, RTTY/Data (maximum power, 5 watts PEP)

All Amateurs except Novices:

1240-1300 MHz: CW, Phone, Image, MCW, RTTY/Data

Higher Frequencies:

All modes and licensees (except Novices) are authorized on the following bands [FCC Rules, Part 97.301(a)]:

2300-2310 MHz; 2390-2450 MHz; 3300-3500 MHz; 5650-5925 MHz; 10.0-10.5 GHz; 24.0-24.25 GHz; 47.0-47.2 GHz; 76.0-81.0 GHz*; 122.25 -123.00 GHz; 134-141 GHz; 241-250 GHz

All above 300 GHz

* Amateur operation at 76-77 GHz has been suspended till the FCC can determine that interference will not be caused to vehicle radar systems

Reported by Alan, KG6ZPL. Please send questions to Alan at thermic72@sbcglobal.net.



The Pacific
Battleship Center
&
Guests of Honor

IOWA Plankowner Tribute Wall

Official Unveiling & Birthday Celebration

USS Iowa - Feb. 22, 1943

&

General of the Armies, George Washington - Feb. 22, 1732

Saturday 22 February 2014 10:00 a.m.

Dockside Plaza - Battleship IOWA 250 So. Harbor San Pedro, 90731

LICENSED AMATEUR RADIO OPERATORS PRESENTING THEIR LICENSES AT THE
TICKET OFFICE WILL RECEIVE TICKETS FOR \$10.

MICROWAVE OVEN USED AS A FARADAY CAGE?

February 28, 2012, by Ken Jorgustin from Modern Survival Blog
(<http://modernsurvivalblog.com/>)

Reader Question:

Can an old microwave oven be used as a Faraday cage?

Answer:

YES, an old microwave is perfect for use as a Faraday cage against EMP (electro magnetic pulse). In fact, it is a Faraday cage! A Faraday cage is an enclosure formed by conducting material or by a mesh of such material. A microwave oven's very design is to enclose the electro-magnetic radiation of microwaves, and keep them from getting out. The reverse will also be true – they can't get in.



Think of a Faraday cage as a reflector. A reflector of electro-magnetic waves. It reflects waves on the outside from getting in and waves on the inside from getting out.

A Faraday cage by its very definition does not have to be grounded to reflect or keep out electro-magnetic waves (they normally are not grounded). From inside the cage, it makes no difference if the conductive shell is grounded or not. The inside 'doesn't know' about the outside with regards to electro magnetic radiation.

The effectiveness of the 'reflection' properties of a Faraday cage depends upon the wavelength of the electro-magnetic radiation in question, the diameter of the holes in the cage's conductive material, and the conductivity of the material itself. Aluminum, or even steel window screen is "good enough" to prevent any significant electro-magnetic radiation.

Most purpose built "Faraday cages" that you buy are made out of copper screen instead of solid metal. As long as the holes in the screen are smaller than the wavelength of the frequencies you are trying to protect against, screen works just as well as a solid piece of metal.

An EMP is a broadband, high-intensity, short-duration burst of electromagnetic energy. In the case of a nuclear detonation, the electromagnetic pulse consists of a continuous frequency spectrum. *Most of the energy is distributed throughout the lower frequencies between 3 Hz and 30 kHz.* However the first effects of nuclear detonation are the very-high-frequency pulses, in the microwave range, and can work their way into Faraday cages if there are cracks, seams, or vents.

The frequency of a microwave oven is 2.45 GHz (gigahertz) and has a wavelength of 4.82 inches. Since the holes of the screen mesh of a microwave oven are small compared to the wavelength of the microwave itself, little radiation can leak out. There are also mesh screens on the sides of the oven cavity, one to protect the oven light while allowing it to shine into the cavity, the other to permit ventilation.

A microwave will indeed protect your electronic gadgets during an EMP, so long as you don't press 'START' ...

(submitted by Steve Wojtak, KJ6VWN)



From The Secretary

JOE-WB6MYD

e-mail - jlaphen@ca.rr.com
310-328-0817

1. **Attendance drawing:** Yes we started the new year with our Attendance drawing as usual. The winner was Matt-KM6ATT, sorry Matt not present. Our February Attendance drawing will be for \$ 30.00.

2. **Dues: Dues are due and payable now please.** Yes the SBARC Club year is from January 1 to December 31st 2014. Please make your check payable to the SBARC and mail to the PO Box 536, Torrance, CA 90508. It is important that we continue with your financial support. We thank you for your continued support and really do appreciate your participation with all we do. We hope to at least stay at our present level with our members or increase which would be better. I'll add those having renewed hereby as well so you can see for yourself whether you renewed or not. Please take a moment of your time and renew, your attendance at next meeting is also a good time to do that as well. Thank you.

3. **January Speaker:** Thank you: Alan-KG6ZPL made his best presentation yet at our January meeting. "Mixers, Modulation, and Bandwidth" certainly are inter related and as presented made for a fascinating topic. His discussion as to how CW takes up bandwidth and why made this also very interesting indeed. Thank you Alan for your excellent presentation.

4. **New Member:** Please welcome Chuck Hohn-K6CSH, Gen. license as new member for 2014. We've worked with Chuck before and will definitely be an great new member to have in our group. Thank you Chuck for joining us. His Amateur Radio Interests are HF, VHF, UHF, Packet, SSTV, DX self/ contests, DCS/RACES/ARES, Net control and antenna parties wow Chuck I really think we can help you in all of those subjects. His club activities he would like to participate in are numerous and we certainly look forward to work with him on these as well. W6SBA FD, Contest HF/VHF, 220 Repeater net, 10 meter net, Technical discussion participant, club meetings, Social activities, net control and antenna parties. Thank you again Chuck for joining us and we hope to learn from you as well as we hope you'll learn from us.

5. **Question of the month:** This month we had 2 questions. The first one was from Ray-WA6OWM. He asked "What's the weirdest you've eaten at Field Day?" we all thought it was pretty funny but nobody was able to top your answer. 'Fried eggs on a hiba-chi' certainly must be something to see I image. The 2nd question by Joe was "what would you like to see the SBARC do this Year?". The answer to that comes from several members and is **to do better on FD scoring and more air time**. So there you have it folks, this is something we might just get to do this year. Stay tuned on that subject.

6. **New Question of the month:** Can we Count on you to **support us for better scoring on FD this year?** we must all realize that even under the best of conditions we still need operators or all that good air time goes off to never never land. Please think about this and give us some positive feedback on this.

7. **Renewed and new members for 2014:** Thank you for taking care of this, we are happy to have you back. Here are your new Attendance drawing numbers: Heidi-KJ6TLM-551729; Craig-WD6AKX-551730; Tom-KI6RC-551731; Tom- KG6SFR-551732; Jerry-KJ6JJ-551733; Paul- KK6BY-551734; Gary-WD9DUI-551735; Jim-KJ6RER- 551736; Linda-KJ6UMK -551737; Hal- KO6M- 551738; Darryl-W6JII-551739; Patrick-K6PDG-551740; Bennie-W6ZAC-551741; Esmeralda Sandoval-551742; Josie Sandoval-55174; Dean Sandoval-551744; Emy Sandoval-551745; Bruce- KK6BJ-551746; Bob-KQ6WQ-551747; Kostek-K6MNA-551748; Bill-KQ6Z-551749; Harlan-KC6YBJ-551750; Arthur-WS6U-551751; Marjorie-KG6HPR-551752; Chuck-K6CSH-551753; Sarath-KF6DBX- 551754; Ray-WA6OWM-551755; Joe- WB6MYD-551756

Thank you so much for your continued support and of course your participation. The SBARC could not exist without your support and as always your needed participation to make this a club by members and for members. Lot of good things for us all are on the board for all to enjoy. Your camaraderie and above all the experience we all wish to share with so many interesting and different efforts by so many of us help us grow. You are our most valuable asset and we look forward to work with you throughout the year. Thank you for being a member of our Amateur Radio Family.

CALENDAR

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

Club Meeting - 3rd Thursday of the month
February 20, 2014 - 7:30 p.m.
Torrance Memorial Med Center
West Tower, 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,
February 22, 2014, 7-11 a.m.

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

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

Answers to Mr. Wave's face on page 5: Eyes = Amplitude modulation;
Mouth = Frequency modulation

CLUB SERVICES

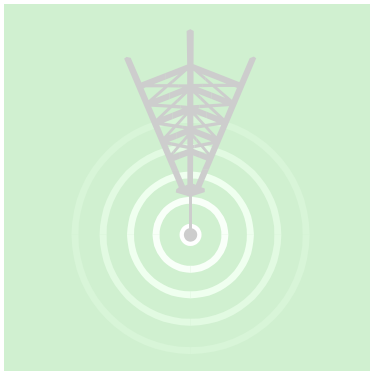
Awards Manager (HF/VHF)	Cliff - K6LH
Health & Welfare	Joe - WB6MYD
Swap Meet Chair	Joe - WB6MYD
VE Test Liaison	Joe - WB6MYD
VE Test Sessions	Joe - WB6MYD
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South Bay Amateur Radio Club Repeater
224.38 MHz · PL - 192.8 Hz Offset -1.6 MHz
(See Calendar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

NEWSLETTER SUBMISSION

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W6SBA@arrl.net
Website: <http://www.w6sba.org>

TO:



Address Correction Requested

A COMMUNITY SERVICE ORGANIZATION

W6SBA

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