



April 2015

ARCOver

A Community Service Organization Dedicated to Amateur Radio Since 1970

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Happy Spring



Happy Easter



E-mail: W6SBA@arrl.net



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

Hi everyone:

At our last Council meeting we spent much of our time discussing this year's Field Day. We have some new challenges this year, In particular, Joe, WB6MYD, no longer owns his van so we will have to get volunteers with trucks and as loaders and unloaders to transport all of the equipment to and from the hospital, We will also not be able to lock equipment up at the hospital over Friday night. Working together I am sure that we will get it done. We are also talking about having a club excursion to cheer on Tom, KI6RC, and Bruce's ,KK6BJ, Great Balloon Release. More details to come on this.

I'd like to remind everyone of the Louis Zamperini event at the Torrance Airport on May 4, 5, and 6. Ham operators are needed so, if you would like to help, contact Chuck Galbasin at 310-245-0989 or 310-370-3294 for more information.

Next month's presentation will be presented by Alex, KD6LPA, with the topic being Echo-link which is a web based way for Hams to talk to other Hams over a combination of internet and radio. It should be interesting so please plan to attend on Thursday April 15th.

I hope that many of you had a chance to hear Paul's (KK6BY) presentation on Arduino applications to amateur radio. It has already given me some ideas on possible projects. Paul is currently researching an Arduino based antenna analyzer. That should be an interesting project and leads me to mention May's meeting topic which will be on the care and feeding of antenna analyzers with hands on demonstrations. I already have four club members who have agreed to act as mentors. That should be fun!

Finally, as I stated at the last club meeting, our annual DIY meeting in November is on the verge of cancellation. We had only three presenters at last year's meeting. We would really like to hold this meeting as I think that it is widely enjoyed by members. However, if we don't get at least five or six firm commitments to build a project and present it at the meeting we will not be able to hold the event this year. That's all for this month. 73's

Alan



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APRIL 15TH - 7:00 P.M.



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

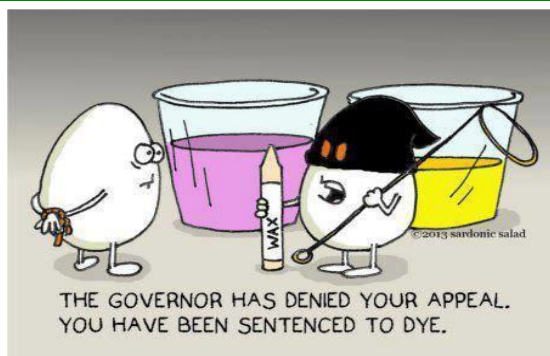
IARU EMERGENCY TELECOMMUNICATIONS GUIDE AVAILABLE ONLINE

The International Amateur Radio Union (IARU) Emergency Telecommunications Guide is now available for download from the IARU website (<http://www.iaru.org/emergency-telecommunications-guide.html>). The guide was developed to provide the IARU member-societies with materials suitable for training radio amateurs to participate in emergencies. It also was designed to provide guidance to individual Amateur Radio operators with little or no experience in handling emergency communications but desire to enhance their ability to participate in such events or to simply have a better understanding of the process. The IARU Administrative Council meeting approved the Guide at its 2014 meeting.



"IARU member-societies are encouraged to distribute this guide among its membership and, if necessary, to provide a translation into a language used within their own country," an IARU media release said. "This guide can also be used in conjunction with other training materials by leaders within the emergency communication community to train radio operators in the basic theory and practice of handling emergency communications traffic."

ARRL Letter 3/19/2015



- 1) Why couldn't the pirate play cards?
- 2) What has eight legs and eight eyes?
- 3) Why didn't the pirate go to the movies?"
- 4) I have 15 coins totaling \$1.00. The coins are quarters, dimes, and nickels only. How many of each do I have?

Answers to last month's quiz

- 1) What is the average speed of a car going someplace at 30 mph and returning at 60 mph?

The first answer that comes to peoples' minds is 45 mph but this is wrong. You need to calculate the total time for the trip and then divide that into the total distance. The actual distance doesn't matter so, for convenience let's say that it is 60 miles away. Then total distance is 120 miles. It takes two hours to go and one hour to return for a total of three hours. So average speed = 120 miles //3 hours = 40 mph. The average speed would have been 45 mph if the cars had spent equal amounts of time at each speed

- 2) I have 100 socks in a drawer. 10 of the socks are white and 90 are black and they are all loose and mixed well..

What is the minimum number I need to take out of the drawer with my eyes closed to insure that I have one pair of matching socks?

The maximum number of socks would be three. If the first two chosen don't match, one will be black and the other white. The next one drawn must match one of them since it will be either black or white.

- 3) If you had a 5-quart bowl and a 3-quart bowl, and an unlimited access to water, how would you measure to get exactly 1 quart?

First fill the 3 quart bowl and pour it into the 5 quart bowl. Then fill the 3 quart bowl again and use it to fill the 5 quart bowl. 1 quart will be left in the 3 quart bowl.

- 4) The day before yesterday I was 65 and next year I will be 68. What day is my birthday?

I was born on December 31st. Let's say the we are in last year, it is December 30th, and I am 65. In 2 days it will be January 1st and I am now 66. On December 31st of 2015, I will be 67 and next year, on December 31st, I will be 68.

FCC ENFORCEMENT BUREAU FIELD RESOURCES POISED TO SHRINK

According to an internal FCC Enforcement Bureau (EB) memorandum, the Bureau plans to ask the full Commission to cut two-thirds of its field offices and eliminate nearly one-half of its field agents. At the same time, the Bureau would develop a so-called "Tiger Team" of field agents as a flexible strike force it could deploy as needed. In the March 10 memorandum to Enforcement Bureau field staff -- obtained by ARRL and others -- EB Chief Travis LeBlanc and FCC Managing Director Jon Wilkins cited the need to take "a fresh look" at the Bureau's 20-year-old operating model in light of technology changes and tighter budgets. ARRL CEO David Sumner, K1ZZ, expressed dismay at the proposals.

"The ARRL is concerned that there is already no sense of urgency in the FCC's enforcement activities targeting spectrum polluters, such as utilities with noisy power lines, or the few violators in our own ranks," Sumner said. "It is troubling to see recommendations for such drastic reductions in the Commission's geographic footprint and the number of field agents at a time when the Field staff is facing ever-increasing challenges."

The EB and the Office of the Managing Director initiated an effort last fall to modernize the Bureau's field operations, the memorandum said.

"This project sought to ensure that the Field's structure, operations, expenses, and equipment were properly aligned with the Commission's overall mission and resources," LeBlanc and Wilkins said. The Commission hired outside consultants to analyze the EB's current "operating model," gathering input from employees, outside experts, and internal and external stakeholders.

Under its "Phase I" field modernization scheme, the Bureau will recommend to the full Commission that it adjust the primary focus of its reduced field office complement to RF spectrum enforcement. The EB will also recommend "adjusting" the number of field agents from 63 to 33. To compensate, part of that field staff complement would include what the EB called a "Tiger Team" of agents "flexible enough to support other high-priority initiatives." Under the plan, all field agents would have to have electrical engineering backgrounds "to support the primary focus on RF spectrum enforcement." The Bureau will also propose standardizing its investigatory and sanctioning processes.

Management would not be spared. Under the recommendations, the EB field organization chart would shrink from 21 to 5 director positions and from 10 to 3 administrative support positions.

Under the proposals, the field office would reduce its "geographic footprint," from 24 sites to 8 sites and would "pre-position" equipment in several other strategic locations. The Los Angeles Office would remain open.
ARRL Letter, 3/12/2015

Standard General Affiliate Acquires 1743 RadioShack Stores

The 1743 retail outlets that survived **RadioShack's** February bankruptcy have been acquired by General Wireless Inc, an affiliate of Standard General LP.

General Wireless this week received US Bankruptcy Court approval to acquire the inventory and assume the leases of the RadioShack stores. The acquisition followed an auction, conducted under the US Bankruptcy Code. The current plan calls for "co-branding" about 1440 of the surviving stores with cellular phone provider Sprint Corp.



RadioShack

"This has admittedly been a difficult time for all RadioShack supporters," said Soo Kim, Managing Partner of Standard General, the majority shareholder of General Wireless. "[T]his transaction is an important milestone in this storied company's history. It has allowed the company to shed stifling debts and unprofitable business lines."

RadioShack once offered entry-level short-wave receivers, Citizens Band gear, a wide array of discrete components — including transistors, resistors, and capacitors — and, for a time, a fairly popular 2 meter hand-held transceiver and two different models of 10 meter single-band transceivers.

Kim said Standard General looks forward to partnering with RadioShack's 7500 employees, its landlords, and with Sprint "to rebuild a great American company."

He said Standard General would be introducing "our talented management team" in the coming weeks. The new team would consist of both new and continuing RadioShack executives.

RadioShack said its partnership with Sprint would help reposition the retailer "as the premier community destination for consumer electronics" and that stores would feature "emerging technologies that enhance the traditional accessories, DIY electronics and innovation for which the company is known."

In the near term, RadioShack has said that it expects to continue to maintain day-to-day operations at its open stores and on its website at RadioShack.com.

ARRL Letter, 4/2/15

RF FILTERS: PART 2

Alan, KG6ZPL

Last month we looked at capacitors. This month we are going to look at inductors. The unit of inductance is the Henry. Like the Farad, a Henry is a very large amount of inductance so we typically see inductors with inductance values in the nano- (1/1, 000,000,000) or micro (1/1, 000, 000) - Henry range.

An inductor is simply a loop or coil of wire. Sometimes it is wrapped around a core made of iron, ferrite or other magnetic material to increase the inductance. In order to understand how an inductor works, it is first necessary to know that, when an electrical current flows through a wire, it sets up a magnetic field around the wire. A steady DC current induces a constant magnetic field. So, when you first send a DC current through a wire a momentary changing magnetic field is induced as the current rises from zero to the maximum value. And, when you shut off the current, a changing magnetic field is again induced. Otherwise, the magnetic field is constant. Now, the opposite is also true. A changing magnetic field will induce a changing electric current in a wire. So, when a DC circuit is turned on, it induces a changing magnetic field and that magnetic field, in turn, induces a changing current in the wire. The important thing to realize here is that the current induced by the magnetic field is opposite in polarity to the original current that induced the field. So, it subtracts from the original current and so acts like a resistor in the circuit. Now, with a DC circuit this occurs in micro-seconds and so is not significant to the operation of the circuit. Such is not the case with an AC circuit.

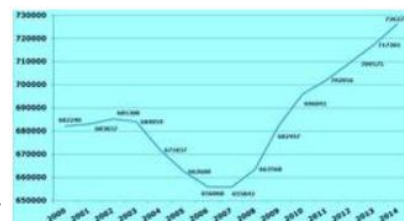
In an AC circuit the polarity of the current is constantly changing so the current induced by the changing magnetic field consistently opposes the current and the faster the current's polarity changes (it's frequency) the greater the opposition. This is reflected in the equation for the impedance (more or less equivalent to the inductor's resistance) which is $X_L = 2\pi fL$ where X_L is the inductive impedance (also known as reactance), π is 3.1416, f is the frequency of the current, and L is the inductance in Henrys. You will note that this is nearly the inverse of the capacitance formula, $X_C = 1 / 2\pi fC$ that we looked at last month. The formula for calculating the inductance of a coil is $L = mN^2A / l$ where m is the permeability (a measure

of how magnetic a material is) of the core, N is the number of turns in the coil, A is the area of the coil (πR^2 where R is the radius of the coil), and l is the coil's length.

As we compare these two formulas we notice that, as the frequency of the AC increases, the capacitive impedance, X_C , goes down whereas the inductive impedance, X_L , goes up. If the circuit is purely DC, an inductor has 0 impedance while a capacitor's impedance is infinite. The reverse is true as the frequency of the circuit becomes extremely large, the capacitor's impedance goes to zero while the inductor goes toward infinity. In addition, capacitive and inductive impedances have, in effect, opposite signs. So, if we have an AC circuit in which X_L and X_C have equal values, they cancel each other out. This is extremely important in many types of circuit. Finally, like we saw with capacitors last month, inductors store energy. If we repeated the circuit we looked at last month but this time put the inductor in parallel with the lamp, when the power source is removed the lamp will dim slowly. The energy is stored in the magnetic field in the inductor and, when the power source is removed, the field collapses keeping current flowing for a short period. Next month we will begin looking at how capacitors and inductors work together.

Number of US Amateur Radio Licensees at All-Time High

The US Amateur Radio population continues to soar. At the end of 2014, the total number of US Amateurs in the FCC's Universal Licensing System (ULS) database



reached an all-time high of 726,275 -- and the trend has continued in the first 2 months of

2015, which saw the total rise to slightly more than 727,000.

The figures exclude expired licenses that are within the 2-year grace period, and club station licenses. Outside of a little dithering last fall, growth in the Amateur Radio Service in 2014 was steady, according to figures compiled by Joe Speroni, AH0A, on his FCC Amateur Radio Statistics web pages. Over the past decade, the number of Amateur Radio licenses in the ULS database grew by some 8.1 percent. But 2014 was also a banner year for the ARRL Volunteer Examiner Coordinator (VEC). *ARRL Letter 3/5/2015*

Amateur Radio numbers in the US from 2000 through 2014. The FCC dropped the Morse code requirement in 2007. Click to enlarge the graphic. [Prepared from statistics compiled by Joe Speroni, AH0A]

IDXC

66th International DX Convention
April 17-19, 2015
Visalia, California

Visit the website for more info or to register.
<http://www.dxconvention.com/pages/registration.html>

IDXC 2015 Convention Registration

When:
April 17-19, 2015

Where:
Visalia Convention Center
Visalia, CA USA



Please Note: Convention Pre-Registration Ends On
Wednesday, April 8 2015 @ 2400 UTC = 5:00 PM Pacific Daylight Time

Amateur Radio to Have a Presence, Special Event at Preparedness Summit 2015



Amateur Radio will be part of the program when Preparedness Summit 2015 convenes April 14-17 in Atlanta. Special event station N4P also will be on the air from the conference location. The theme of this 10th Preparedness Summit is "Global Health Security: Preparing a Nation for Emerging Threats."

"Global health security preparedness issues such as protecting against infectious disease, the health effects of climate change and extreme weather, and cybersecurity threats to critical infrastructure, impact all levels of governmental public health and healthcare agencies," a Preparedness Summit 2015 media release explained. The National Association of County and City Health Officials (NACCHO) organizes the event, which attracted 1600 participants in 2014.

Preparedness Summit 2015 will once again offer an Amateur Radio licensing prep session on April 14, with testing the following day. A ham radio demonstration, "When All Else fails, Amateur Radio Gets Through," will take place on April 14 as well.

Special event station N4P will be on the air from the Preparedness Summit 2015 venue. Listen for N4P on or around 7.265, 14.265, 21.365, and 28.36 MHz. EchoLink activity using the Georgia Tech Radio Club's W4AQL call sign also will take place. A commemorative QSL card will be available for stations working N4P.

The complete Preparedness Summit agenda and more information are on the conference's website. —
Thanks to Chuck Motes, K1DFS

ARRL Letter, 04/03/15

NEED A PROJECT IDEA?

Members looking for an easy to build CW project might want to consider this kit from QRPme, <http://qrpme.com>. The original article for the Tuna Tin 2 was published in the May 1976 issue of QST. QRPme sells the 35th anniversary version of the basic TT2 design and brings it up to date. For overall clarity, the parts are laid out on the board in the exact same way the schematic is drawn. The toroids and transformer have been replaced to both reduce the complexity and time of the build. ALL the connectors are mounted directly to the board so there is no external wiring to mess around with. All the components are supplied with the kit so all you need are tools, soldering iron and solder. Of course, you will need to come up with a can to mount your finished kit on... You could have a tuna fish sandwich for a snack while you build the kit.



Submitted by Alan, KG6ZPL

Why did the Easter egg hide?



He was a little chicken!



News From

Joe

1. Attendance Drawing: Our lucky winner for the March 19, 2015 meeting was Matt-KM6ATT. Unfortunately, Matt was not present and therefore our April kitty will go up to \$ 25.00. Please remember you must be a member in good standing and furthermore be present for the drawing.

2. New member: Our first new member for 2015 is Ronald Johnson-KK6SFM. Please remember him not only as a new member but as a new ham. If you think back on your time when just gotten your ticket and you to was totally new to the Amateur Radio business needed an helping hand to get started. Ronald passed his test with our VE team in February of this year and so get acquainted with him and Help him in any way you can. He does have an 2m/440 HT and we would like to have him join us on Thursday night nets of course. Tell him about your experience with the really affordable HT perhaps you have. His interest is in HF, VHF and UHF and also packet. He furthermore is interested in DX self/contest and also DCS/RACES/ARES. So let's help him out. Welcome to the South Bay ARC and thank you for joining us Ronald.

3. Additional Members in Good standing:

Scott KK6MNM 551850	Steve KJ6VWM 551851
Russell KI6HBG 551852	Yoshio KE6ACH 551853
Ron KK6SFM 551854	Glenda KF6QFE 551855
Scott N6LEM 551856	Meredith K6QEC 551857
Matthew N6MDC 551858	Nancy NJ6S 551859
Bill N6ES 551860	Clyde WB6HLS 551861

Thank one and all for your continued support. We certainly hope you're enjoying our company as well as we do enjoy yours. Please help us continue our growth and our drive to excel as the one of the best in our area.

4. New membership rosters: It is our intention to provide you with our updated membership rosters for your convenience. Please remember not to share any information with others and respect their privacy. At this point we only provide those at the April meeting with a new membership rosters due to the high cost of mailing. We would like to see you and continue your support with us as a member of the same family.

5. Request update: One of the problems with e mailing everybody is that we really don't know whether you get to read the Arc Over and such. I therefore once again appeal to your senses and call me if you change anything such as family status, phone numbers and above all e mail addresses. Remember this is your club but you can only be part of it as long we can keep you informed.. So please keep us updated.

A HAM'S IDEA OF EASTER HAM!



6. Thank You: We wish to thank Paul-KK6BY for the excellent presentation on Arduino application used with amateur Radio. It is wonderful to hear Paul talk about some of the projects he's done and made reference to. While Paul knows all the ins and outs of these little projects he too comes across some really difficult ways to complete the simple projects due to the failure to explain things properly by those providing the information. So should you get involved with a few things like that and get stuck, well ask Paul. He may have been there and done that. Thanks Paul.

7. "Wings of Freedom Tour 2015": Please remember to call Chuck-KG6RPN or email him at kg6rpn@gmail.com for your assignment at Torrance Airport for the May 4-6, 2015 Tour. This is actually an tribute to Louis Zamparini our home town hero so please let Chuck know if you can help. Thank you.

8. Possible changes for the TRW swap meet: We've been given notice that Northrop Grumman is going to take back the present parking lot used for the swap meet every last Saturday of the month. Yes TRW swap meet has been around since the 1970's and would be something missed if it would stop operating in our area. Let's hope they will be given another parking lot to operate on after August since no other reservations were accepted for after the August swap meet. Please go to their website at www.W6TRW.com for updates.

9. Jacket and polo shirt's: As we all know we as the South Bay ARC are very much involved with the upcoming ARRL SW Div. convention in September at the Marriott Hotel right here in Torrance. To look like a nice group we could really stand out with our jackets and polo shirts. Let me know if you would want one or more so we can get a price or at least start to check for it. Let me know Joe-WB6MYD at jlanphen@ca.rr.com

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!

CALENDAR

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

Club Meeting - 3rd Thursday of the month
April 15, 2015 - 7:00 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,
April 25, 2015 , 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

CLUB SERVICES

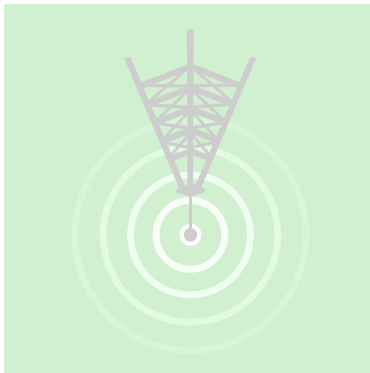
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Health & Welfare	Joe - WB6MYD
Swap Meet Chair	Joe - WB6MYD
VE Test Liaison	Joe - WB6MYD
VE Test Sessions	Joe - WB6MYD
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South Bay Amateur Radio Club Repeater
224.38 MHz · PL - 192.8 Hz Offset -1.6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

NEWSLETTER SUBMISSION

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TO:



Address Correction Requested

A COMMUNITY SERVICE ORGANIZATION

W6SBA

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