



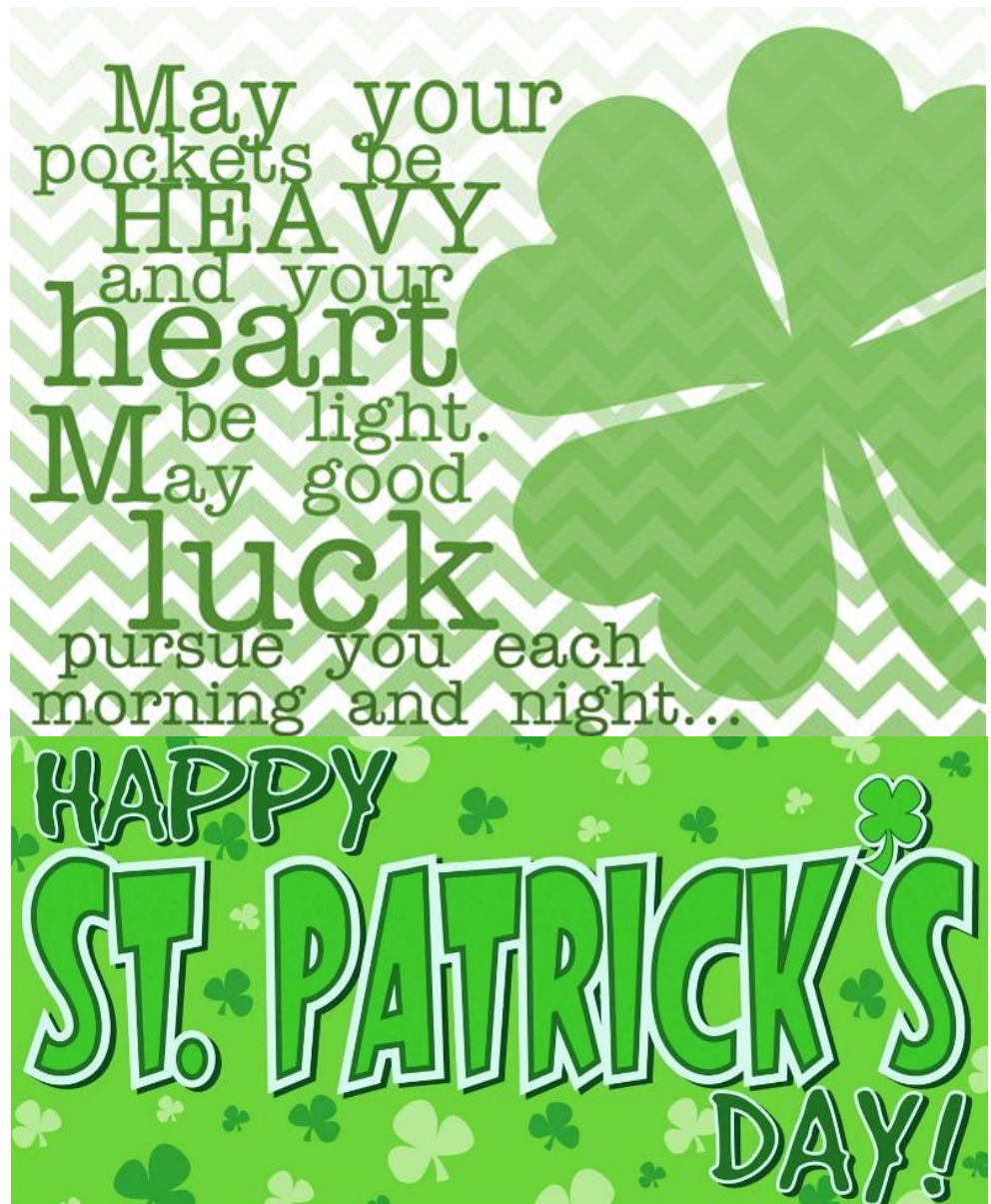
March 2015

ARCOver

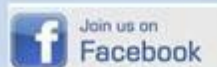
A Community Service Organization Dedicated to Amateur Radio Since 1970

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E-mail: W6SBA@arrl.net



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

Hi everyone:

This month I would like to start off with an invitation to join with TARA to help provide communications and other support for a tribute to Louis Zamperini at the Torrance airport. The event, held by the Western Museum of Flight, is being held on May 4, 5, and 6. There will be a number of World War II aircraft including fighters and bombers on display and available for rides if you are feeling rich. If you would like to help, contact Chuck Galbasin at 310-245-0989 or 310-370-3294 for more information. It should be a fun event so please help if you are able to do so.

I don't know how many of you are aware that the monthly TRW Swap meet has turned into a social occasion for SBARC members and friends. It's fun to visit the swap meet to see all of the stuff offered for sale and to meet and talk to the people wandering by the club's booth. After the meet closes, club members go out together for a late breakfast. Our booth also needs stuff to sell. If you have any electronic stuff that you want to sell, please bring it to one of the Council members and we will see that it gets to the meet. You will be charged a modest fee if we sell your item. This supports the cost of renting our monthly space at the swap meet. We also need volunteers to help out at the booth. We have had to skip several recent meets because we couldn't find anyone to man the booth so please help. We have to pay for the space whether we use it or not.

We are looking ahead to the next Hamcon where, as you may know, we are responsible for the W1AW radio station. We have two main needs for this activity. One is for a trailer, motor home, or ??? that we can use to house the station. The other is for a portable tower on which we could put one of our tri-band beams. If you know where we can get either of these or if you have any ideas regarding these needs please contact one of your Council members. Thanks.

This month your presentation will be made by Paul, KK6BY, who will talk about arduinos and their application to ham radio. We are giving a lot of thought to an Arduino club project. In April, Alex, KD6LPA is going to talk about Echolink. In May, we hope to have a talk on antenna analyzers and their use with some "hands-on" activities. Remember that Field Day is creeping up in us. 73's

Alan

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Paul, KK6BY, will discuss Arduinos and their applications to amateur radio. He will be bringing examples of Arduino projects and will demonstrate them to the club.

Come join us on Thursday, February 19th at 7:00 p.m. at Torrance Memorial Med Center in the West Tower, Room A.

The Radio Shack near Normandie and Redondo Beach Blvd (Gardena Valley Shopping Center) has these



<http://www.radioshack.com/make-it-component-kit-2/2760352.html#.VP80xgvDuYg.email> for \$36. Useful parts for the Arduino crowd. They also have Kit 1 but they want \$49 for it which I thought was a bit high. Please pass on to club members. Price may drop more but supply is limited.

Paul, KK6BY



- 1) What is the average speed of a car going someplace at 30 mph and returning at 60 mph?
- 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?
- 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?
- 4) The day before yesterday I was 65 and next year I will be 68. What day is my birthday?

Answers to last month's quiz

1) Most of you have heard variants of this one: I have two coins whose value totals 6 cents and one of them is not a nickel. What are they? Try this variant: neither of the coins is a 5 cent piece. What are they?

The answer to the first part is a nickel and a penny. The answer to the second part is two 3-cent pieces. These were minted from the 1860 through the 1880s. Some, minted in nickel, were known as 3-cent nickels. Some were made of silver although in far lower quantities than the nickel ones. While still legal coins, they are worth far more than 3-cents to collectors.

2) What can travel around the world while staying in a corner? A stamp. Mike, K16LJM, suggested a sock in a corner of a suitcase. I'll take that answer too.

3) If I went halfway to a town 40 miles away at the speed of 20 m/hour, how fast do I have to go the rest of the way to have an average speed of 40 m/hour over the entire trip?

No speed will do the job. It's impossible to do. If you average 40 mph for the entire trip, the trip will take one hour to complete. However, if I go halfway, that is 20 miles, at 20 mph I will have already used up one hour of time. There is no time left so it can't be done.

4) A radio whose original cost was \$100 has been discounted by 30%. It didn't sell so it was then discounted an additional 20%. Would the final price have been different if it was just discounted 50% originally?

Yes, the prices are different. \$100 less 30% is \$70. \$70 less 20% is \$56. \$100 less 50% is \$50.

Q: What's this?

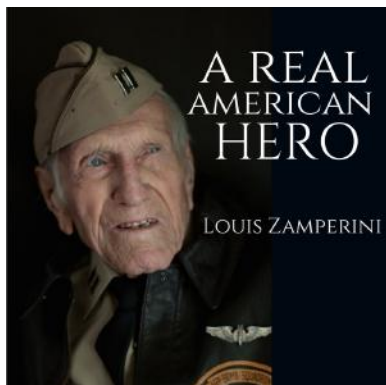


A: Some Irish i's a-smiling.

WESTERN MUSEUM OF FLIGHT "WINGS OF FREEDOM TOUR 2015--A TRIBUTE TO LOUIS ZAMPERINI"

May 4 - 6,
2015

The Western Museum of Flight is seeking volunteers to help during their tribute to Louis Zamperini. This event is to take place starting Monday, May 4th through Wednesday, May 6th at Zamperini Field (Torrance Airport).



They require licensed HAM operators to assist throughout the event. They hope to staff 2 shifts each day, from 8:00 AM to noon, and from noon to 3:30. HAM operators wishing to volunteer are to contact Chuck Galbasin at KG6RPN@gmail.com to coordinate HAM efforts.

They plan on featuring WWII bombers and fighters, to include the B-17, B24 and B25, as well as a P51 Mustang on public display. Flights will be available for an additional donation.

Non-HAM volunteers are needed also.

More information is available at: <http://www.wmof.com/collings-volunteer.html>

*When is an
Irish Potato not Irish?
When it's a French Fry*

ASTRONAUT-HAM JOHN GRUNSFELD, KC5ZTF, NAMED TO ASTRONAUT HALL OF FAME

NASA astronaut and Amateur Radio operator John Grunsfeld, KC5ZTF, is among those to be inducted into the Astronaut Hall of Fame this spring. The others are

Margaret Rhea Seddon, Steven Lindsey, and Kent Rominger.

They will join previous honorees, including Alan Shepard, Neil Armstrong, and John Young in a ceremony on May 30 at Kennedy Space Center. The 2015 inductees are the 14th class. All told, the group has recorded 18 space shuttle missions over 26 years. An astronomer and astrophysicist, Grunsfeld worked on the Hubble Space Telescope on three shuttle missions.



To date, fewer than 90 astronauts have been selected by a panel of their peers to join this elite group. Astronaut Hall of Fame inductees are selected from a pool of nominations, with the finalists chosen by a panel of Hall of Fame astronauts, NASA leaders, flight directors, historians, and journalists. For its inaugural class in 1990, the Hall of Fame inducted the original group of US astronauts -- the Mercury Seven.

The Astronaut Hall of Fame features the world's largest collection of personal spaceflight memorabilia. It is operated as part of the Kennedy Space Center Visitor Complex.

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Now a NASA associate administrator for science, Grunsfeld is a veteran of five spaceflights. He logged more than 58 days in space and eight spacewalks. His first flight was in 1995 as part of the STS-67 shuttle mission aboard Endeavour. -- Thanks to AMSAT News Service via Spaceflight Insider ARRL letter for Feb. 26, 2015

RF FILTERS: PART 1

I have been asked several times to do a talk on filters. I thought that this was a good opportunity to do a series of short articles. In order to understand filters, it is first necessary to gain an understanding of capacitors and inductors.

A capacitor can be thought of as two plates of metal separated by a layer of non-conductive material such as air, mica, or a ceramic. The two metal plates are then connected to a power source. If the source is DC, no current flows in the circuit. However, a negative charge collects on the plate connected to the negative side of the power source and a positive charge collects on the other. This charge will (eventually) have the same voltage that the source is providing. If the power source is removed from the circuit, the charge will remain on the plates of the capacitor and will act as a battery. Capacitors are often used in this way to provide a temporary source of power in various circuits. If a light bulb is put in place of the power source, it will light up until the stored power is exhausted.

However, if the power source provides an AC current, the capacitor will pass a current as the plates continuously change in polarity. As the frequency of the AC current rises, the ability (apparent resistance) of the capacitor to conduct a current increases. The ability of the capacitor to resist the current is called impedance (sometimes reactance) and, in a circuit, acts more or less like a resistor. Indeed, the impedance of a capacitor is measured in Ohms just as is a resistor. The big difference is while that the resistance of a resistor is fixed, that of a capacitor is not. It decreases as the frequency of the current increases. The formula for the impedance of a capacitor is $X_C = 1 / 2\pi fC$ where π is 3.1416, f is the frequency and C is the capacitance in Farads.

The unit of capacitance is the Farad. One Farad is a really big amount of capacitance. This is why most of the capacitors that we see in circuits have capacitances in micro (1/1,000,000)-Farads, nano (1.1,000,000,000)-Farads, or pico (1/1,000,000,000,000)-Farads. A 1-farad capacitor can store one coulomb of charge at 1 volt. A coulomb is 6.25×10^{18} , or 6.25 billion billion) electrons. One amp represents a rate of electron flow of 1 coulomb of electrons per second, so a 1-farad capacitor can hold 1 amp-second of electrons at 1 volt.

The important things to remember from this are that, for a DC current, a capacitor acts as an open circuit; it does not conduct. As the frequency of the current increases, the ability of the capacitor to conduct increases. Also, if the capacitance of a capacitor is close to zero, it will act as an open circuit. As the capacitance increases, its impedance decreases. So, for a given capacitor, if we want to decrease its impedance, we need to raise the frequency of the current. For a given frequency, if we want to decrease the impedance of a capacitor we must raise its capacitance. Both of these conclusions come from the formula $X_C = 1 / 2\pi fC$. If we make the denominator larger, X_C gets smaller and X_C is the apparent resistance of the capacitor in the circuit. Next month we will learn about inductors which are, in many ways, the reverse of capacitors.

Submitted by Alan, KG6ZPL

"GRAY RADIO GANG" REACTIVATES VINTAGE BATTLESHIP IOWA HF TRANSMITTER

It's a massive project on a number of levels, but the so-called "Gray Radio Gang" that's been working to restore some of the vintage US Navy radio gear on board the Battleship Iowa (BB-61), docked in Los Angeles, recently fired up one of the vessel's transmitters for the first time in about 25 years. Restoration team member Jim Jerzycke, KQ6EA, recounted on his "Every Blade of Grass" blog how the group was finally able to get 950 W into a dummy antenna from one transmitter on 20 meters.

"We still have quite a way to go before we attempt to put one [transmitter] on the air, but the results were quite encouraging for at transmitter that was last powered up sometime in 1990," Jerzycke said in his blog. "BB-61 should be on the air later this year with a big voice!"



He told ARRL that, once transmitters are deemed operational, they probably would not be used very often on the ham bands. The Iowa already has a ham radio station, NI6BB, under the auspices of the Battleship Iowa Amateur Radio Association (BIARA), an ARRL-affiliated club. BIARA's president is Doug Dowds, W6HB. NI6BB has more modern gear but makes use of the ship's own antennas.

The BIARA is active from the Iowa most Wednesdays and for many national holidays, such as Veterans Day, Pearl Harbor Day, and Memorial Day, and for operating events such as the Museum Ships Weekend and International Lighthouse/Lightship Weekend. The station also has hosted Boy Scouts' Jamboree On The Air (JOTA) groups each fall.

Jerzycke said the Gray Radio Gang is composed of about 10 individuals with experience on various types of US Navy radio gear dating from the 1950s to the 1980s, when most of them served in the Navy. "At 63 years old, I'm one of the 'youngsters' in that group," he added. The team has been trying to get the original receivers, transmitters, RTTY gear, and antennas working again, Jerzycke said. "We are very fortunate in having the guys from the aircraft carrier Midway in San Diego and the Battleship New Jersey in Camden, New Jersey, who have provided us with technical help, documents, and spare parts."

The AN/URT-23(C) transmitters, he joked, are "built like a battleship," with a pair of 4CX1500Bs in the final and nominally capable of putting out a couple of kilowatts. He noted that once the Gray Radio Gang has confirmed the signal paths for the various shipboard transmitters and receivers, it will be able to put a transmitter/receiver pair in operation for certain special events. "At this time it's unlikely that we will use the original radio equipment for 'routine' Amateur Radio operations, as it's very manpower intensive, requiring at least six people to operate," Jerzycke explained. ARRL Letter, February 2015

Two Free Amateur Radio Courses

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

FCC "**General**" course (2nd level)

Each course is 2 sessions

The sessions will be on 2 & 9 May 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 16 May 2015

At the start of the 2 May 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

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.



1. Attendance drawing: No attendance drawing at the February meeting. No winner and or loser. The kitty will be 20 dollar for our March meeting.

2. Thanks: We wish to thank both Bruce-KK6BJ and Tom-KI6RC for their excellent presentation on their "near space Balloon project" at our February meeting. I was unable to attend due to the recovery from surgery. I am sure that these 2 guys shared with you a whole lot of trials and tribulations regarding this project. I heard enough from them about this project to know that things got quite complicated in no time at all. I am sure we all look forward to hear the results once launched and hopefully recovered info the hope to obtain form this project sometime in the near future. Thank you Bruce and Tom for the excellent presentation.

3. Dues: Yes it is that time again, the SBARC club year is from January 1 to December 31. Dues are 20 dollars for regular membership, 30 dollars for up to members at the same address and 30 dollars for family membership (only one member has voting rights). Won't you please take a moment of your time to write a check payable to SBARC for your 2015 SBARC dues. Mail to SBARC, PO Box 536, Torrance, CA 90508-0536. Your continued support as well as your participation is greatly appreciated, remember this is your club and each and everyone is greatly appreciated. Thank you Joe-WB6MYD

4. Club Services: We have a lot of projects coming up for this year and so we look forward to your full participation and continued support in as many projects as you can. We offer services to our members and especially "elmering". This hobby has always been one step ahead of the pack and that is because we all want to work together. No question is a dumb question except for a question not being asked. So please if you need some help with something Amateur Radio Related we can help you. Ask any of our officers or talk to us of course. If you need name badge, License upgrade or pass to upgrade, we have VE sessions 6 times a year. Both Hamcon September 2015 is coming up in Sept. of this year at the Marriott right here in Torrance. Please talk to us and above all question if not getting the right answer. We are here to help you. Thank you.

5. Additional members in good standing: Ray WG6V 551838 Linda KJ6UMK 551839 James KJ6RER 551840 Bill KQ6Z 551841 Mike KI6LJM 551842 Jim W6IVW 551843 Ray WA6OWM 551844 Chuck KN6H 551845 Arthur WS6U 551846 Marjorie KG6HPR 551847 Brian KI6ERR 551848 Howard KF6NOR 551849

Thank you one and all for your continued support. We really look forward to many more years of membership.

6. New/Renewed members. Long time members having dropped from the SBARC are always welcome to return. Reasons are too numerous to list and we all know how busy our life's can be with a growing family. In this case 3 boys having seen them as youngsters and now having graduated from very prestigious schools or about to have finally reached the point at which they can say " the nest is empty" let us enjoy the camaraderie of the South Bay ARC again. Yes Peter-AC6EN and Carolyn-KE6LTQ have rejoined us and are looking forward to get back into Amateur Radio. Please welcome Carolyn and Peter when they find the time to be with us. Thanks Joe-WB6MYD.



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
March 19, 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,
March 28, 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

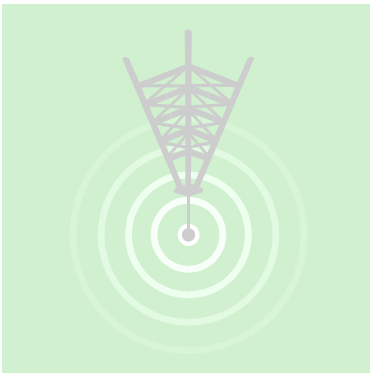
Awards Manager (HF/VHF)	Cliff - K6LH
Health & Welfare	Joe - WB6MYD
Swap Meet Chair	Joe - WB6MYD
VE Test Liaison	Joe - WB6MYD
VE Test Sessions	Joe - WB6MYD
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Proofreader	Alan - KG6ZPL

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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