



December 2018

ARCO *vet*

A Community Service Organization Dedicated to Amateur Radio Since 1970

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Happy Holidays

Keep a Warm Heart and
Spread the Joy Around You.



E-mail: W6SBA@arrl.net



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

Seasons Greetings to All

Thanks for a great year, hope everyone enjoyed as much as I did.

We have a new Council for 2019, please give your elected Officers your support. Congratulations to Tom – KB9ENS (VP), Paul – KK6BY (Council Member), Mark – KM6HQD (Council Member), Chuck – K6CSH (Council Member), and Joe – WB^MYD (Sec/Tres).

Thanks for the hard work in 2018 from Bruce – KK6BY, Ed – KN6JN, Heidi – KG0GGY, Steve – KM6KMF, Alan – KG6ZPL, Joe – WB6MYD and Alex – KD6LPA.

Heidi – KG0GGY has accepted a new position at her work and has moved to the Chicago area. Heidi held both a Council position and was the Web Master for www.w6sba.org. We all will miss you and good luck on your new position.

Congratulations to all participants in this years DIY program headed by Alan – KG6ZPL.

December will celebrate the Holidays with a Club Pot Luck at the December Meeting. Members please provide the pot luck portions of 5-10 servings. This is divided into 3 groups and is based on the first letter of your last name, A-G: bring a salad; H-P: bring a dessert; Q-Z: bring a side dish The club provides the turkey, ham and drinks. If you have a favorite dish, please bring it along.

We will be presenting a few special awards this year and we have an Auction of a 40 M QRP Cub CW Transceiver Kit, MFJ-9340K

Activities are an important part of a club, here are a few in January 2019; Jan 1 SKN (straight key night), Jan 5 Kids Day, Jan 5-6 RTTY Roundup (this year includes WSJT mode "FT8"). Jan 19-21 ARRL January VHF Contest. For more info check www.arrl.org/contest. Remember, for more info, check-in to the weekly (1930-hrs) Thursday Night Net on W6SBA/R.

Important update on WSJT-X and Modes FT8 and MSK144. WSJT-X 2.0 is a major update that introduces new protocols for FT8 and MSK144. The new protocols became the world-wide standards on December 10, 2018. WSJT-X 2.0 cannot communicate in these modes with other stations using WSJT-X v1.9.1 or earlier. Please help by urging everyone to upgrade no later than January 1, 2019. The new FT8 protocol provides optimized message formats for North American VHF contests, ARRL Field Day, and ARRL RTTY Roundup. Similarly, the new MSK144 protocol provides optimized message formats for North American VHF and European VHF contests. Full support is provided for "/R" and "/P" calls in the relevant contests.

Upcoming ARRL Conventions: Feb 15-16 Southwestern Division Convention (Yuma Hamfest), Yuma, Az. May 17-19, Dayton Hamfest,

WA6OWM



< 2018 CLUB OFFICERS >

President: Ray Grace -WA6OWM 2706 Spreckels Ln, Redondo Beach, 90278 310-370-1913 wa6owm@arrl.net

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Past President: Alex Marko-KD6LPA 1843 W.243rd Place, Torrance, 90501 310-530-6614 kd6lpa@socal.rr.com

DECEMBER

It's Party Time!



Our club holiday party will be held on **Thursday Dec 20, 2018 in the Health Conference Center, Room 1.** The club is providing the "ham" (very fitting), turkey and drinks are covered as well by other members.

Since this is a potluck party, attendees are asked to bring items as indicated below:

**A – G brings a salad;
H – P brings dessert,
Q – Z brings a side dish.**

We also ask you to bring either a real poinsettia or artificial one to decorate the tables. At the end of the evening we'll take them over to the "Volunteer" office in the West Tower to be distributed among the nurse's stations and patient areas. We do this every year to show our appreciation to the TMMC for all the great places we use at the TMMC Campus.



CORNER

WITH ALAN, KG6ZPL

- 1) Ray has three cubes made of modeling clay and having sides of 3, 4, and 5 inches respectively. He smooshes (a technical term) them together and makes one big cube of the resulting mess. How long are its sides?
- 2) A toy boat floats in a bathtub full of water. The boat contains a rock. A child removes the rock and drops it into the water where it sinks to the bottom. Is the water level in the tub now higher, lower, or the same as it was before the rock was removed and dropped into the water?
- 3) What ends everything always?
- 4) It is an insect, and the first part of its name is the name of another insect. What is it?

November Answers

- 1) Two trains are traveling at 50 miles an hour. They are 100 miles apart, and headed straight towards each other. A fly can travel at 70 miles an hour. He starts at one train and flies towards the other. When he reaches the second train he turns around and heads back to the first. He keeps flying back and forth until the trains meet. How far has the fly traveled? *It's tempting to solve this by complicated means, but there's an easier way. The trains collide in one hour, and in an hour the fly travels 70 miles. That's it.*
- 2) On a cold, windy day, ten year old Daniel went on a short walk with his father and two uncles. All four wore hats. Only Daniel's hat was tied on. A sudden gust of wind blew off the hats of the three adults. Daniel retrieved the hats, but did not notice the differences among them. He gave the hats back randomly. What is the probability that exactly two of the men got their own hat back? *Zero. If 2 men have their hats back, then the third must have his hat back as well.*
- 3) One is to three as three is to five and five is to four and four is the magic number. What is the pattern? *One has three letters in the word three has five letters in it five has four letters and four has four letters in it (if you try more numbers they will always come back to the number four: so four is the magic number).*
- 4) Take away my first letter, and I still sound the same. Take away my last letter, I still sound the same. Even take away my letter in the middle, I will still sound the same. I am a five letter word. What am I? *Empty.*

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

ARRL Says Wireless Power Transfer for Electric Vehicles Petition is Premature

ARRL is opposing a Petition for Rulemaking (RM-11815) by several vehicle manufacturers that calls on the FCC to "adopt field strength limits in Section 18.305 that will allow higher-power wireless charging technologies operating in the 79 - 90 kHz range" to accommodate what the petitioners call "next-generation" wireless power transfer for electric vehicles (WPT-EV). Comments filed on October 29 by ARRL contend that the petition is "woefully incomplete and inadequate"

in its analysis of consequent out-of-band emissions from WPT-EV systems in the low- and medium-frequency ranges using upward of 11 kW of power. Given the high power levels, ARRL said harmonic emissions from WPT-EV systems could be apprecia-

ble, with the AM Broadcast Band and Amateur Radio as potential interference victims. "Interference potential from intentional radiators requires substantial evaluation," ARRL asserted in its remarks.

The issue of WPT-EV is a World Radiocommunication Conference 2019 (WRC-19) agenda item, for which studies are still under way. The Petition "quite obviously prejudices the outcome of WRC-19 Agenda Item 9.1.6," ARRL said, stressing that the Petition is simply premature at this point.

"The Petition is typical [of those that] tout a new application of old technology," ARRL commented. "So as to establish a sense of urgency, the bulk of the Petition is dedicated to establishing a public interest justification for making a rule change now, in order to accommodate the technology." The Petition seeks a specific field strength limit of 74.4 dB μ A/meter (at a distance of 10 meters), regardless of the charging system's operating environment. That works out to about 2.07 V per meter (at 10 meters) or 126 dB μ V -- 126 dB above 1 μ V. The Petition presumes that the optimum internationally harmonized frequency range for WPT-EV is already known to be 79 - 90 kHz and that the optimum field strength to minimize any impact on radiocommunication services has been established, ARRL commented.

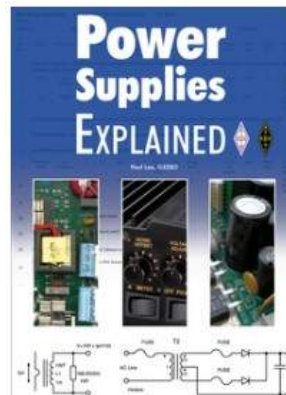
"The problem, however, is that there is nothing in the four corners of the Petition that would justify those assumptions," ARRL told the FCC. ARRL said the rollout of WPT-EV "has



Researchers at Oak Ridge National Laboratory test a wireless power transfer charger on a fully electric vehicle. [US Department of Energy photo]

New Book, Power Supplies Explained, Now Shipping

Radio amateurs often take a power supply for granted. After all, it's just the box that, at the flick of a switch, provides stable dc voltage. A modern power supply is much more though, combining theory that dates back to the 19th century, incorporating the latest techniques in digital control, and taking advantage of a wealth of electronics practice in between. Power Supplies Explained sets out to explain in understandable terms what that box is doing, and it can also explain how you can design your own custom-built power supply.



Some believe there is a little magic in power supply design. Beginners may be especially wary of the challenging mixture of digital, analog, magnetics, and control loops, with cooling, EMC, and safety to contend with as well. While many books deal with in-depth theory, they often give little guidance on the practical aspects of achieving working designs. Power Supplies Explained is different. It describes how circuits are chosen for the application and how they're designed, including inductors and transformers. Calculations are outlined simply, so the reader can use them as a basis for their own designs.

Chapters include descriptions of linear supplies and a wide range of switching-mode power supply types, from simple buck converters to the latest of-line high-efficiency types. Practical examples are based around typical Amateur Radio requirements and, in many cases, are versions of commercial products the author has successfully designed. Power Supplies Explained, published by the Radio Society of Great Britain (RSGB) and imported by ARRL, is available from the ARRL Store (ARRL Item no. 5010, ISBN: 978-1-91019-364-8, \$24.95 retail). Call 860-594-0355 or, toll-free in the US, 888-277-5289

profound implications in terms of its ubiquity in future years," and called on the Commission to deny the petition without prejudice or dismiss it altogether.

"Quite clearly, the petitioners have 'jumped the gun' by filing this Petition now," ARRL concluded. ARRL Letter. 11/1/2018

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 and 9 February 2019

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

General 1:45 PM to 5:00 PM both Saturdays

The FCC tests will be 10:00 AM to noon on 16 February 2019

At the start of the 2 February Technician course, the Palos Verdes Amateur Radio Club will give a 30 minute presentation on how to get further involved with amateur radio.

The class location is at Fred Hesse Community Park,
29301 Hawthorne Blvd., Rancho Palos Verdes, CA 90275

Confirm your attendance to Walt, K1DFO at waltordwav@iuno.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,
\$26 for the Technician and \$26 for the General
Paper copy of Walt's Power Point charts,
\$22 for the Technician and \$18 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 test session, regardless of age, will receive a free membership in the Palos Verdes Amateur Radio Club for the remainder of the current calendar year.

FCC Approves Use of Galileo Global Navigation Satellite System in the US

The FCC has granted, in part, the European Commission's request for a waiver of Commission rules so that non-federal devices in the US may access specific signals transmitted from the Global Navigation Satellite System (GNSS) known as Galileo. The action means that consumers and industry in the US may access certain satellite signals from the Galileo system to augment the US Global Positioning System (GPS). The Order said that the Galileo GNSS is uniquely situated with respect to the US GPS, because the two systems are interoperable and RF compatible.

Specifically, the Order permits access to two of the Galileo system's satellite signals -- the E1 signal transmitted in the 1,559 - 1,591 MHz portion of the 1,559 - 1,610 MHz Radionavigation-Satellite Service (RNSS) band, and the E5 signal transmitted in the 1,164 - 1,219 MHz portion of the 1,164 - 1,215 MHz and 1,215 - 1,240 MHz RNSS bands. These are the same RNSS bands in which the US GPS satellite signals operate.

The Order does not grant access to the Galileo E6 signal, which is transmitted over the 1,260 - 1,300 MHz frequency band, because this band is not allocated for RNSS in the US or used by the US GPS to provide position/navigation/timing (PNT) services. The FCC pointed out that granting access to the Galileo E6 signal could constrain US spectrum management in the future in spectrum above 1,300 MHz, where potential allocation changes are under consideration.

The omission of the E6 signal also means that radio amateurs would not have to protect Galileo receivers from interference on 23 centimeters, which has been a significant issue in Europe. ARRL Letter, 11/29/2018



CHRISTMAS GREETINGS




**HAPPY
HOLIDAYS
AND
NEW YEAR**

Ready for an Emergency? You can be.

Ed Hinz, KN6JN



It's the holiday season. A time for giving and a time for preparing. Here are a few items you may want to add to your list for Santa.

Water storage: Coleman 5 gallon water container, Reliance 5 gallon Water-Pak and the 7 gallon Aqua-Tainer also from Reliance. For larger storage there are blue 55 gallon drums. Remember to get the hose and hand pump for the big storage.

Food Storage: Review the Popular Mechanics articles on preparing for a hurricane. Another suggestion is CLIF bars. They store for about 1 year or longer. Much better tasting than emergency ration bars. If you do store food have a good can opener.

Sanitation, Hygiene: Wet wipes, hand sanitizer, and thick trash bags. Also prescription meds and personal hygiene items and a quality first aid kit.

Lighting: Lamp and head lamp. Some for your emergency kit, a few around the house. Candles for outdoor use. Sterno makes a 55 hour candle that stays lit in a breeze.

Fire Starter: Many different ways to go here. Under emergency conditions you may need more than matches or a bic. Weber lighter cubes are an option.

Whistle: I have a bunch and could lay hands on one pretty quick. If you want to gift a whistle there are many options at the sporting goods store. Fox 40 Sonik Blast CMG whistle or the Shoreline Marine Emergency Survival whistle are options.

Weather Radio: At one time the Red Cross had these for sale. Midland ER210 has many features.

The best to you and yours for this holiday season.

FCC Rejects 2004 AMSAT Petition to Reconsider Applying Orbital Debris Rules to Ham Satellites

As part of a larger ruling, the FCC has rejected a Petition for Reconsideration that AMSAT filed 14 years ago, seeking to exempt Amateur Radio satellites from the FCC's satellite orbital debris mitigation requirements. The Commission took the opportunity in a Notice of Proposed Rulemaking and Order on Reconsideration, released on November 19, that revisits its orbital debris rules for the first time since their adoption in 2004. Among other things, AMSAT had argued at the time of its Petition that applying the orbital debris requirements to Amateur Radio satellites would be cost prohibitive, and that the FCC had not indicated what constitutes an acceptable orbital debris mitigation plan.



"[I]n the years since the debris mitigation rules were adopted, and notwithstanding any costs imposed by FCC regulations, well over 150 small satellites have been authorized, with at least 20 of those considered amateur satellites," the FCC said in its November 15 Order on Reconsideration. "It appears that, to the extent that any costs have been incurred, the main contributor to costs for amateur and similar LEO missions has to do with the availability of launches to appropriate orbits."

The FCC also said that in the years since the FCC issued its Orbital Debris Order, "numerous licensees, including amateur satellites operating in LEO, have successfully satisfied our orbital debris mitigation requirements.

In a statement, AMSAT said, "We look forward to working with the FCC to craft a regulatory framework that addresses the growing concerns regarding orbital debris while preserving the flexibility for hobbyists, experimenters, and researchers to access a variety of orbits. ARRL Letter, 11/29/2018

JOTA Reports 36% Growth in Scout Participation

Scouting's Jamboree on the Air (JOTA) 2018 **reports** that total Scout participation in the annual fall event jumped by 36% from 2017. Each year more than 1 million Scouts and Guides get together over the airwaves for JOTA, which takes place on the third weekend of October. Since the first JOTA in 1958, millions of Scouts have become acquainted via Amateur Radio, and contacts sometimes result in relationships that extend for many years.

This year, 10,703 Scouts took part in the event, compared with 7,872 last year. Participating Amateur Radio operators topped 1,000 for the first time since 2016. At 610, the number of registered JOTA locations was way up, as was the number of JOTA stations registered, with 314. Participating JOTA stations reported contacts with stations in 99 countries, also up over 2017.

JOTA Coordinator Jim Wilson, K5ND, said he was pleased with this year's numbers and hopes that 2019's event will show a continued increase, despite a lack of sunspots. ARRL Letter, 11/30/18

SPOT the INFORMATION



Attendance drawing: The winner for our Nov 15, 2018 meeting was Marjorie-KG6HPR, not present. Since no drawing will take place at our Dec meeting the kitty for our Jan 2019 meeting will be \$ 25.00. This will be up to the new Council for the 2019 year.

awesome DIY PROJECTS

This turned out to be a very popular event we now been having for several years. Reward winners of the \$25.00 prizes: Jeff-KM6GYB for his original emergency Solar generator and Joanne-KM6BWB for her balloon project. While it failed, the payload was recovered leading up to quite adventure as you had been told at the time. Several other entrees were shown: Tim-KI6BGE showed several home brew projects. Tom-KB9ENS showed his QRP rig which was so small that a hiker would not even know he was carrying it which is what Tom does. Tom-KI6RC showed his next payload with all its instrumentation on board for it. Alan-KG6ZPL also showed several kits he had built. Congratulations to the winners and thank all of you for your 'show and tell' projects for 2018.



Radio Activity: Ray-WA6OWM suggested we have a go at two fun contests which should be easy for a lot of us. ARRL 10m contest during the 2nd full weekend of December and the ARRL Rookie Roundup on Sunday Dec 16, 2018 using CW (maybe not so easy CW). Any way, if that does not excite you look in the Dec QST page 70. It is the 'Contest Corral' and has almost a full page of contests going on during December. Almost every month has the Contest Corral listings for that month, making it easy to pick one you would like to participate in. Also, we have VHF/UHF frequencies, making it easy to get on the air. Tuning across the band on vhf/uhf will almost certainly put you in touch with a station. Digital modes are also available as well. Should you be out of town you can connect with us back here on Echo link. So many options!. So let's have a try folks.



Most, if not all, of us have a computer with which we can view our own W6SBA website. You do not have to sign in to see all kinds of information. The calendar is available for you to see some club activities listed. Of course the Arc Over is available, lots of pictures and also some other club information. Please check it out.

ELECTIONS

After opening the floor for any other nominations and no one stepping up the following slate was presented by Ray-WA6OWQM for a vote. The following positions were slated: President-Vacant; Vice Pres.-Tom-KB8ENS; Secretary-Joe-WB6MYD; Treasurer-Joe-WB6MYD; Chuck-K6CSH remained as Council member; Paul-KK6BY; Mark-KM6HQG. While the Pres. position is open the 2019 Council will deal with that. Congratulations to all the newly elected and thank you to those staying on for another term as Council members for the 2019 South Bay ARC Council.

Thank you to all those Council members such as Steve-KM6EMF, Ed-KN6JN and Ray-WA6OWM for having been on the 2018 Council. Of course so many others are working in less visible capacities but very much appreciated positions. However, more importantly, we thank all our members for supporting the club this past year and for their participation in so many activities the club was involved with. You can't separate the two, club and membership are the most important part of any organization. Therefore thank you one and all.



We also wish to wish you all a very Merry Christmas and a Happy New Year. May we look forward to another successful year with your continued support and your participation. Please enjoy the upcoming holidays with family and friends and be safe. Joe-WB6MYD.

CALENDAR

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

Club Meeting - 3rd Thursday of the month
December 20, 2018- 7:30 p.m.

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,
December 29, 2018, 7-11 a.m.

VE Session - Contact: Joe WB6MYD
Phone: (310) 328-0817
jmlanphen@gmail.com or w6sba@arrl.net
(All VE sessions are scheduled for Room 4 in the Health
Conference Center for 2018)

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

CLUB SERVICES

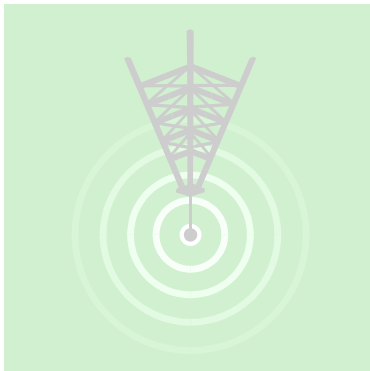
Awards Manager (HF/VHF)	Cliff - K6LH
Health & Welfare	Joe - WB6MYD
Swap Meet Chair	Tom-KI6RC, Chuck- K6CSH., Bill-KQ6Z
VE Test Liaison & Sessions	Betty Barch-N6VZF N6VZF@arrl.net (310) 545-6422
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South Bay Amateur Radio Club Repeater
224.38 MHz · PL - 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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