Editor’s Note

Have ideas for the Milliwatt? Send them in! We are always looking for great Content. themilliwatt@gmail.com

Meetings

The next Friday Night General Club meeting:
Date: Friday, May 3, 2019
Time: 7:00 pm
Location: American Red Cross (map)
3150 E. 29th Street
Long Beach, CA 90806
The next **ARALB Board Meeting** ([map](https://maps.google.com))

**Date:** Monday, June 3, 2019  
**Time:** 7:00 pm  
**Location:** American Red Cross ([map](https://maps.google.com))  
3150 E. 29th Street  
Long Beach, CA 90806

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**Meeting Speaker:** Bob Grubic, NC6Q

**Vacation DXpedition to Panama**

Bob NC6Q has been licensed for over 40 years and holds an Amateur Extra Class license. Though inactive for many years raising a family, he’s been very active the last 15 years.
He has served in many ham radio positions, including:

ARALB:
Board Member, Membership Chairman, W6RO Assistant Manager, W6RO Wireless Room Operator, Field Day Chairman, Ham of the Year, Instructor for: 2 CW Classes and Radio Propagation Lessons for a General Class Course & The Milliwatt newsletter editor.

LAX ARES:
Assistant South District Emergency Coordinator, Net Manager, Net Control Operator, Baker-to-Vegas radio operator

Organizer and Net Control Operator for a Slow Speed CW Net

Bob often operates portable from the Republic of Panama.

Bob is a member of the Associated Radio Amateurs of Long Beach (ARALB), FISTS, CDXC, SCCC and a Life Member of the ARRL. He is a retired English teacher and enjoys HF CW contesting, Field Day, and portable operations.

Hillcrest Park ARDF on May 4

By Joe Moell K0OV
Every spring, hams in north Orange County organize an outdoor day where they operate radios, find hidden transmitters and eat lots of good food. The annual "Antennas In The Park" (AITP) event is organized by the Fullerton Radio Club. This year, AITP will take place at Hillcrest Park in Fullerton on Saturday, May 4.

The AITP foxhunt is in celebration of the twenty-first annual CQ Worldwide Foxhunting Weekend. All ages are welcome, so bring the family. AITP transmitter hunts are simple and informal. They are suitable for beginners, but more
advanced hunters can treat them as a "sprint." There will be no charge for participation in the hunts, which will begin around 10:30 AM and continue until 2 PM. Be sure to bring your two-meter handi-talkie and know how to program it to any frequency in the two-meter band.

If you don't have the antenna/attenuator system for on-foot foxhunting on two meters with your ham radio handi-talkie or scanner, a limited amount of equipment will be available for loan. Better yet, you can easily make your own during this session. Beginning at 10 AM, Marvin Johnston KE6HTS will conduct a clinic for building his kits for measuring-tape yagis and for 90 dB offset-type attenuators. An assembled/tested attenuator in a special housing that goes inside the boom of the yagi is also available. If you want one or more kits, please register in advance by sending e-mail to marvin@west.net, so he will have the kits reserved in your name waiting for you.

It takes about an hour to put the antenna and attenuator kits together with tools and soldering irons that will be provided. If you're not an electronic technician, don't worry because there will be plenty of experts to help you. Then with your HT and the kit built equipment, you will be all set to hunt.

In addition to the two-meter band, international ARDF championships also include an 80-meter band event. At least one optional 80m transmitter will be on the air for you to try.

Besides the transmitter hunts, Fullerton Radio Club members are expected to have at least one HF station on the air and to fly some radio-controlled aircraft. There will be a barbecue at lunchtime with burgers, hot dogs and soft drinks. A $5
A donation per person is requested if you want to take part in the barbecue. The traditional Worldwide Foxhunting Weekend cake will be served to participants in the transmitter hunts. A few canopies and tables will be set up, but for eating and sitting around, please bring your own lawn chair.

Hillcrest Park in Fullerton is bounded on the west by Harbor Boulevard, on the north by Brea Boulevard, on the east by Lemon Street and on the south by Valley View Drive. From the 91 Freeway, take the Harbor Boulevard exit and go north about 1.8 miles to Valley View Drive.

We will gather at the Izaak Walton Cabin in the southwest area of the park. You can park in the lot north of Valley View, midway between Harbor and Lemon. Look for the orange and white orienteering flag at the entrance to the parking lot. Walk north through the playground into the lower picnic area and then west up the hill to the cabin. You can also drive the one way road through the park and park in the lot north or the cabin or along the road northeast of the cabin. Talk-in is on K6QEH/R, 146.97(-) PL 136.5.

73,
Joe Moell K0OV

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Field Day Planning Meeting
Field Day is FAST Approaching, and the ARALB Needs your support!

Field Day has been an annual event sponsored by the American Radio Relay League ARRL since 1933. Each year for a 24 hour period during the last weekend of June amateur radio operators throughout the United States and Canada try to make as many contacts as possible by radio from remote locations with other amateur radio operators.

Operations during Field Day are intended to simulate conditions that would exist in an emergency situation. Stations are set up on remote temporary locations using generators, solar panels, and temporary antennas.

The Associated Radio Amateurs of Long Beach (ARALB) are committed to local
community service through the use of amateur radio. ARALB usually operates as a 6A class station, “Six independent Stations simultaneously on different bands.”

Field day 2019 is coming, Next Month! and we need to continue preparations. There is still a lot to do, and we need as many ideas, and helping hands as possible. Please consider attending the planning meeting on Saturday in May (Exact Date TBD). It will be held at The Red Cross 3150 East 29th Street, Long Beach 90806

EmComm 4 U
One of the first jobs of Amateur Radio is to provide communications in time of emergency. In the event of a major earthquake, flood, or fire, amateur radio operators are prepared to provide communications. In remote places, without any electric service, with no government equipment or major utilities involved, amateur operators are uniquely prepared for emergencies. Hams provide their own portable stations, and they can operate under adverse conditions. This emergency function is one reason that the FCC continues to allocate bandwidth for Amateur Radio.

How prepared are you to respond in an emergency? Some training is required if
you are to be an efficient communicator. You must know what protocols are in place, whether to use HF frequencies or VHF/UHF frequencies, simplex or a repeater and where you will find nets that carry emergency traffic. You must know what information to record and how to transmit it using the least amount of airtime and the fewest repeats.

You should learn these skills and practice them. You don’t know when an emergency will require your ham radio response, but the moment of an emergency is not the time to start learning. The time to train is now.

One of the best ways to learn about emergency communications is by taking the ARRL EC-001 online course, Introduction to Emergency Communication. This is an extensive overview course that takes about nine weeks to complete. Once you sign up, the ARRL will assign you a mentor who will guide you through six sections that cover 28 topics. There are required student activities for each section, and that is why the course takes a couple of months to complete. You can move at your own speed. Upon completion of the course material, you will be given, a 35-question final assessment. Is it worth taking the course? You bet it is. Your mentor will be a great companion, able to clarify any questions you have, and also willing to share their emergency experiences with you. Your course material will help you learn about emergency communications in general, and the course activities will show you all about how emergencies are handled in California.

There are prerequisites. You should prepare for the EC-001 course by taking two FEMA courses:

- ICS-100 (IS-100.c) Introduction to the Incident Command System; and
- IS-700 (IS-700.b) National Incident Management System.
These courses are free, and each one takes one to two hours to complete. Together they give you a basic emergency response vocabulary and an understanding of how multiple agencies (including ham operators) function together in an emergency response.

To register for the EC-001 course, go to the ARRL web page: http://www.arrl.org/online-course-catalog and read about the course. Follow the links to the registration page (http://www.arrl.org/online-course-registration), and then click on the link “Click here to register for EC-001”.

Now that you’ve got your ham license and had a little fun with your radio, taking EC-001 is one of the best steps to improve your radio skills and apply your radio knowledge.

One Morse Operator’s Experience
So, I answered the call put out by Wireless Room Manager David Akins N6HHR for all Crew Members to try to volunteer for extra shifts in the month of April. This would be to make as many radio contacts as possible to put out the word about the 40th Anniversary of the W6RO Wireless Room on the Queen Mary.

I answered the challenge and treated it like a mini-contest, one that lasted a month. I worked several additional shifts (some mornings, some afternoons, some evenings) and corraled Carina Lister KF6ZYY to join me for some of them. I operated only CW. She operated phone, each time using the “magic” of the female
voice on HF radio to make lots of contacts—and she did! She was very conversational and engaging. Talking up our 40th Anniversary and the special QSL card that was available.

I programmed my CW keyer to call CQ with one push of the button, with a 3-second interval between repeat calls of CQ. I figure someone should hear me eventually and I’d even get picked up by the spotting networks around the world that can read the CW and spot W6RO. Well, sometimes the bands were ok, once 40 meters was really hot, most of the time the bands were nearly dead. You know, when you sit at a radio for hours and call CQ, a lot can happen! Here’s a summary of my most notable contacts in the month of April.

- I worked a ham in Xenia, Ohio! The new home of the “Dayton” Hamvention since it actually was moved from Dayton, Ohio. Xenia is just outside of Dayton, a few miles east.
- One fellow, I worked even told me that he had been on one of the welcoming boats to greet the Queen Mary when she sailed into Long Beach on December 9, 1967.
- Another ham sent his Morse code ever so slow. It turns out he had to use a keyboard to type his words and that he was blind! Of course, his keyboard-CW was perfect.
- During one gray-line period, when I thought the 20-meter band was completely dead, a fellow answered my call from over 3,300 miles away—in Puerto Rico! He was loud and clear as a bell! (Gray-line being that time on the earth between night and day, the time right before and right after the sun has risen and/or has set.)
- And there was the time on a Wednesday when the CWOps CWT Contest was going on. Well, I looked up the exchange on the internet, and answered
a number of guys with “Bob CA.” I wonder how many of them realized they were working the Queen Mary!

- Then there was “Susan” who answered my CQ from the Armed Forces Retirement Home in Mississippi! Her CW “fist” was pretty good.
- I also worked a ham named “Zhiguo” in Frisco, Texas who sent me his name several times so I would be sure to get it correct.
- And finally, on the last day of the month, I worked “Rock” in Coronado who sends his greeting to all club members and told me that he met his wife at an ARALB Club meeting year ago! Rock was my last contact in this Anniversary event.

Of course, there were also the many everyday hams whom I worked and they all wished us well on our 40th Anniversary on the Queen Mary.

73 de Bob NC6Q

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**Museum Ships Weekend Set for June 1 – 2**
Museum Ships Weekend will take place over the June 1 – 2 weekend, sponsored by the Battleship New Jersey Amateur Radio Station NJ2BB. Radio operation will be from a variety of vintage and noteworthy vessels. This is not a competition.

So far 75 ships are on the roster to take part. All stations working at least 15 different participating ships will receive a certificate, if they send a copy of their log showing these contacts.

While operation on any amateur frequency is allowed, most ships will be operate in the General portion of the bands. PSK31 operation will be on 14.070 MHz, 10.142 MHz, 18.100 MHz, 21.070 MHz, and 28.120 MHz.

Some ships also may be found on 75 meters (3.880 – 3.885 MHz) and on 40
meters (7.290 MHz) using AM, some using the vessel's original restored equipment.

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**To ensure student success, we need more Marconi**

By Jamie Gass and Ze'ev Wurman, Special to MediaNews Group

"I seemed to have a special... aptitude for mechanics, physics, and chemistry," wrote the brilliant early 20th-century engineer, inventor, and founder of global communications Guglielmo Marconi, "which were not taught at the school I regularly attended."

April marks the 145th celebration of Marconi's birth in Bologna, Italy, and this year is the 110th anniversary of his winning the Nobel Prize in Physics. He was the first
person to systematically use radio waves to communicate over long distances, develop wireless telegraphy, and is considered the "father of radio."

Today, our world of smart phones, Bluetooth, Wi-Fi, satellite TV and radio, Global Positioning Systems, and wireless computer networking was largely imagined by and based on Marconi’s electrical experiments.

Born to an Italian nobleman and an Irish mother, whose family owned the famous Jameson whiskey distillery, young Marconi was a prodigy educated by private tutors. He never attained any higher educational credentialing.

Marconi said reading about the sea voyages of 18th-century British explorer Capt. James Cook and a biography of America's lightning-rod inventor Benjamin Franklin inspired his early intellectual curiosity.

He also credited his tutor, Vincenzo Rosa, for teaching him higher-level mathematics, physics, and electromagnetic engineering. Students should know about Marconi's farsightedness and how he pioneered the wireless communication that powers our modern world.

Nowadays, millions of families across America seek alternative school choices to ensure their children learn the science, technology, engineering, and math (STEM) necessary for the 21st century's interconnected global economy.

According to federal figures, there are 56.6 million American students in K-12 schooling. Those families who can opt for school choices often do: 5.9 million attend private and parochial schools, 3.2 million are in charter public schools, 2.7
million access formal online learning, and 2.3 million are homeschooled.

Research demonstrates that countless numbers of suburban parents also choose private math tutoring models from Asia and Europe, including Kumon and the Russian School of Mathematics, to ensure their children have the advanced math skills Marconi's parents sought for him over a century ago.

Limited school choice options for economically-disadvantaged kids coupled with mediocre academic quality in STEM and the humanities are major reasons why American public education has long lagged far behind its international competitors.

"If we consider what science already has enabled men to know - the immensity of space... the infinite smallness of the composition of atoms...," Marconi wrote, "we remain astounded by the enormous machinery of the universe."

Ultimately, Marconi's experiments showed that certain radio waves can conform to the Earth's curvature by bouncing off a layer of the atmosphere, which allowed him to develop devices that transmitted messages over long distances.

Biographer Marc Raboy's Marconi: The Man Who Networked the World tells us he went to Britain, received the first patent for wireless telegraphy, and built a global communications business empire.

On his way to success, Marconi sought the advice of renowned American inventors Thomas Edison and Alexander Graham Bell. He also built on the innovations of the Boston-born Samuel Morse, who in 1836-38 developed the electric telegraph machine and his famous code.
In late 1901, Marconi’s team used Morse’s code for the letter "S" when sending and receiving the world’s first wireless trans-Atlantic radio signal over the 2,200 miles between Poldhu, England and St. John's, Newfoundland. Two years later on Cape Cod, he relayed a message from President Theodore Roosevelt to King Edward VII in Great Britain, marking the first transoceanic signal originating from the United States.

Regrettably, these days American K-12 education runs on weak curriculum standards. Consequently, it transmits lots of vacuous education school fads, including "whole child" education, 21st-century skills, and social-emotional learning.

National test scores reveal that America’s kids are struggling due to poor quality academic content in schools. Students rarely read entire books about historically significant inventors and have difficulty with the higher-level math that is the foundation of the global knowledge economy.

For previous generations of Americans, K-12 public education based on rigorous liberal arts and STEM fed young minds with key lessons from the world-changing legends of the invention. We can reconnect to this clearer wavelength by providing families greater school choices that inspire students with the magnificent accomplishments of giants like Guglielmo Marconi.

Jamie Gass directs the Center for School Reform at Pioneer Institute, a Boston-based think tank, and Ze’ev Wurman is an executive with a semiconductor startup in Silicon Valley and a former senior adviser at the U.S. Department of Education.
Be a W6RO Operator on the Queen Mary!

W6RO - The Nate Brightman Wireless Room aboard the Queen Mary - is the world famous club station of the Associated Radio Amateurs of Long Beach. We strive to staff the station every day. There are a number of vacant shifts that we would like to fill. We need experienced hams who know HF operation and can represent amateur radio to visiting tourists. Volunteers are asked to commit to at least one regularly calendared four-hour shift each month. Interested persons are invited to contact station manager David Akins, N6HHR, at n6hhr@arrl.net.