



June 2019

# ARCOver

A Community Service Organization Dedicated to Amateur Radio Since 1970

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**FIELD  
DAY  
2019**



**IT'S HERE!**

**FIELD  
DAY  
2019**



**FIELD  
DAY  
2019**



E-mail: [W6SBA@arrl.net](mailto:W6SBA@arrl.net)



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

## President's Message

Hello fellow SBARC Ham's,

The 2nd Saturday club lunch and antenna test is scheduled this coming Saturday, June 8th. After the VE session, plan to meet for lunch at noon at Smokin' Joey's BBQ located at 25308 Crenshaw in Torrance; (310) 257-1324. Lunch will be followed by a trip to the Fileday site at Ernie Howlett Park to do a test assembly of the A3 antenna with new mast system (meet between 1-1:30pm). We also thought it would be a good idea to look over some of the setup requirements since we are new to this location. We'll also test SWR with analyzer, document steps, disassemble the antenna, and call it a day. Please try to make it.

2019 Field day planning remains underway. We plan to utilize Ernie Howlett Park located at 25851 Hawthorne Blvd, Rolling Hills Estates, CA. Alex Marko is our lead for this year's field day. We are planning to run 1A due to our member participation level. I estimate the park sits at about 400 feet of elevation. The plans are still in work weather we go overnight or just make it an extended day event. We can always use your expertise in setting up and operating. I am hearing the food plan should not disappoint. Come out and participate with your club.

Another note about programming those cheap radios. I have a small mobile QYT KT-8900r, this is a VHF/UHF with a 240 to 270MHz mid band for Asia, I guess. There's many versions of these radios including a Btech UV2501+220. CHIRP had source code available. It's all been developed in Python. I was able to interpret enough information with some remedial Python internet tutorial to modify the CHIRP program for my kt8900r from 240MHz to 220MHz. And, it worked. It's surprising how much frequency range these radios are capable of. This is supposed to be a 25 watt radio. I was only able to get 10 watts before the re-programming. After programming to 220MHz about 7 watts. I went in and adjusted the output filter inductors. Now I get about 12 watts on 224.380 MHz. I am still looking into the power reality versus the likely specification optimism. The receiver sensitivity seems to be fine. We'll see how it turns out.

Club activities in June include, the club meeting on the 20th, followed by Field Day on the 22nd and the TRW/NGC swap meet on Saturday the 29th. The swap meet proceeds benefit the club. There's a few opportunities this month to socialize with your fellow club members.

See you at Field Day 2019!

73's... Scott N6LEM



- 1) What is the next term in the series: 77, 49, 36, 18,
- 2) How many full moons are there in a year?
- 3) A palindrome is a word or phrase that reads the same forward or backwards such as "did". List 7 4 letter palindromes.
- 4) What jumps higher than a building?

### May 2019 Quiz Answers

- 1) I have 44 hats. Is it possible to hang them on 10 hat racks so that every rack has a different number of hats on it? **No it isn't. If you put 0 hats on the first rack, 1 hat on the second and so on until you put 9 hats on the tenth you will have used  $0 + 1 + 2 + \dots + 9 = 45$  hats which is more than you started with so it isn't possible.**
- 2) I'm Fred said the boy on the right; I'm Bob said the boy on the left. A third boy says truthfully that at least one of the boys is lying. Is Fred on the right or the left? **Fred is on the left and Bob is on the right. If one of the boys is lying then they both must be.**
- 3) Re-arrange the letters, O O U S W T D N E J R, to spell just one word. What is it? **"Just one word"**
- 4) A couple have seven daughters. Each daughter has one brother. How many are in the family? **There are ten in the family. There are seven daughters and one son, shared by each of the daughters.**

Please send answers, questions, and comments to Alan at [thermic72@sbcglobal.net](mailto:thermic72@sbcglobal.net)





## Armed Forces Day Parade 2019 Report

This year we were once again asked to help the city of Torrance with their annual Armed Forces Day parade. This event has been going on uninterrupted for 60 years and our club has been an important part of it for the last few years.

We set up a radio station using our repeater at the intersection of Torrance Blvd and Acacia Ave, just 2 blocks east of Crenshaw, where the parade starts. We then have teams of members who go up the parade line-up and make sure everyone is in place and in the proper order. We help locate late arrivals and those out of sequence and get them to their assigned location. No-shows and those marching out of sequence are identified and the information about them is communicated to net control at our station. This info is relayed to the parade announcers and others via a radio link to the Torrance Amateur Radio Association (TARA). They in turn pass the information on to the organizers of the parade, the announcers and the viewing public.

This year Chuck and Tom arrived early at 10 AM and set up the station. We used the club's base, and Ringo Ranger 220 MHz antenna hooked up to the new Alinco 220 rig. We used a drive-on base, 12 feet of mast, co-ax and folding table provided by Joe WB6MYD. Chuck provided the solar powered battery and EZ-up and a few chairs and we were ready to go before others arrived. We had an ice chest for cold water and drinks, and other members brought their handy talkies and chairs.

Scott N6LEM was acting as net control and Glenda KF6QFE, Tom KI6RC, Sarath KF6DBX, Randy N6BXP and Richard KM6VME helped out with the duties throughout the day. They located about 6 no-shows and helped make sure others were setup in the proper sequence. The weather was pleasant with partial overcast and it didn't get too hot. We had an excellent view of the marchers and equipment as they approached the parade start point. Some of stayed for the entire parade as we had an excellent vantage point right on the sidewalk. Break-down of the hardware didn't take long and we were packed up and ready to depart shortly after the last parade participant passed by. All in all it was an excellent and worthwhile event to be involved with. Chuck, K6CSH



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## Hams Help Trace "Mystery" Signal Disrupting Keyless Entry Devices in Ohio

A recent article in The New York Times reported that many garage door openers and keyless vehicle entry fobs in an Ohio town near Cleveland mysteriously stopped working. While the article invoked The X-Files and hinted initially that a NASA research center might be involved, the cause was not so much mystifying as arcane.

"Garage door repair people, local ham radio enthusiasts, and other volunteer investigators descended on the neighborhood with various meters," the May 4 article by

Heather Murphy recounted. "Everyone agreed that something powerful was interfering with the radio frequency that many fobs rely on, but no one could identify the source."



More than a dozen residents reported intermittent issues getting their key fobs and garage door openers to operate, and most lived within a few blocks of each other. At one point, the local power utility started shutting off power to areas where the strongest RF signal was detected, but the signal persisted. Dan Dalessandro, WB8ZQH, a TV repairer, was among several hams who investigated. He initially picked up "little blips" on a signal detector, but finally, on one block and at a particular house, the signal was quite loud.

"The source of the problem was a homebrew, battery-operated device designed by a local resident to alert him if someone was upstairs when he was working in his basement," the Times reported. "It did so by turning off a light." The inventor, not identified for privacy concerns, had no malicious intent nor any no inkling that his device was wreaking havoc on the neighborhood until a North Olmstead City Council member and a volunteer knocked on his door. The device operated on 315 MHz, the frequency many keyless-entry devices use under FCC Part 15 rules. The device's battery was removed, the signal stopped, and all who were involved breathed sighs of relief. ARRL Letter. 5/9/2019

## FCC Chairman Proposes Call Blocking By Default to Combat Robocalls

FCC Chair Ajit Pai is proposing action to help consumers block unwanted robocalls. He has circulated a declaratory ruling that, if adopted, would allow phone companies to block unwanted calls to their customers by default. In addition, companies could allow consumers to block calls not on their own contacts lists. A draft Further Notice of Proposed Rulemaking would propose a safe harbor for providers that implement network-wide blocking of calls that fail caller authentication under the SHAKEN/STIR framework, once it is implemented.



FCC Chair Ajit Pai.

"Allowing call blocking by default could be a big benefit for consumers who are sick and tired of robocalls," Pai said. "By making it clear that such call blocking is allowed, the FCC will give voice service providers the legal certainty they need to block unwanted calls from the outset." Pai encouraged carriers to start providing these services free of charge and by default to current and future customers.

According to an FCC news release, many voice providers have held off developing and deploying call-blocking tools by default because of uncertainty about whether these tools are legal. "Allowing default call blocking by voice providers could significantly increase development and consumer adoption of such tools," the FCC said. "This blocking could be based on analytics and consumer 'white lists.' Similar analytics are currently used by third-party developers in call-blocking apps." The FCC said consumer white lists could be based on a customer's own contacts list. Pai also proposed seeking public comment on how caller ID authentication standards, known as SHAKEN/STIR, can inform call blocking. He has demanded that carriers adopt these standards to combat malicious spoofing. This system of signing calls as legitimate as they pass through the phone networks may be useful for call-blocking tools, the FCC said.

The May 15 action would mark the first by the FCC to directly combat robocalls that spoof legitimate, in-service numbers. This follows adoption of new rules in 2017, which allowed blocking of calls before they reach consumers when they are highly likely to be illegitimate. "These calls might appear to come from non-existent area codes or from numbers on the Do Not Originate list that do not make outbound calls -- like the FCC's own consumer help line, which was added to the list following scam calls that spoofed the agency's 888-CALL-FCC number," the Commission said. The FCC will consider these measures at its June 6 open meeting. ARRL Letter. 5/16/2019



## ARRL Reply Comments Stress Need to Update Technician Privileges in a Digital World

In reply comments to the FCC (comments on comments already filed) on its Petition for Rule Making (RM-11828), ARRL has stressed that updating HF privileges for the entry-level Technician license "is the sole subject and intent" of the petition. ARRL filed its reply comments on April 29, urging the FCC to disregard comments irrelevant to its petition and maintaining that Technician privileges must be relevant within the context of today's technological environment.



"[T]he increasingly rapid pace of change in communications technologies, coupled with the national need for self-training in science, technology, engineering, and math" necessitate the rule changes requested, ARRL asserted. "ARRL made its request because of the gap between today's digital technologies and the privileges accorded the current entry-level Technician license." ARRL characterized its proposal to update the rules as "balanced and modest."

"If adopted, there would be no change to the operating privileges for all license classes other than those of the Technician class," ARRL said. In 2018, ARRL asked the FCC to expand HF privileges for Technician licensees to include limited phone privileges on 75, 40, and 15 meters, plus RTTY and digital mode privileges on 80, 40, and 15 meters. The FCC invited comments on the proposal in April.

ARRL pointed out that some comments filed on its petition address subjects related to other open proceedings rather than expanding Technician privileges, citing comments cross-filed in such proceedings as WT Docket 16-239, RM-11708, RM-11759, and RM-11831. "Those filings should be considered in the proceedings that they address, rather than here," ARRL said.

ARRL said some opposition appears based on fears of increased interference potential due to additional digital operation by Technicians. "It is improbable that all, or even a majority, of Technician licensees suddenly would develop a passion for the same digital technology," ARRL said. "Our hope and expectation is that many will engage with digital modes on the high-frequency spectrum at issue, but it is unrealistic to suggest that every Technician licensee blessed with new privileges would suddenly appear on the same band."

The comments note the development of very efficient digital modes, such as FT8, which occupies just 90 Hz of spectrum per signal. "The experience with FT8 clearly demonstrates the attraction of the digital modes and the spectrum efficiencies that can be achieved," ARRL said. "This is why opening up limited digital opportunities to new radio amateurs so clearly would serve the broad public interest as well as the specific purposes of Amateur Radio in experimentation and innovation, as enumerated in the governing FCC rules."

ARRL further said that comments regarding disagreement on the definition of encryption for masking the content of certain digital transmissions are also "out of place in this proceeding" and "should not delay initiation of a proceeding" proposing to update Technician privileges.

"Technology has changed dramatically in the Amateur Radio domain, and ARRL believes the requested Technician license enhancement would foster the regulatory goals for the Amateur Service and continue to increase amateurs' historical experimentation and service in a meaningful way," ARRL concluded. ARRL Letter, 5/2/2019



## FCC Re-Charter Technological Advisory Council for New Term

The FCC has re-chartered its Technological Advisory Council (TAC) for a 2-year term. Comprised of a diverse group of leading technology experts, the TAC provides technical expertise to the FCC to identify important areas of innovation and develop informed technology policies. Greg Lapin, N9GL, will continue to represent ARRL on the TAC.



"The TAC will consider and advise the Commission on a variety of topics such as the deployment of 5G technology, the evolution of broadband networks and devices and their implications, the spectrum needs of unmanned aircraft systems, new developments in antenna technology, and the applications of artificial intelligence to telecommunications networks," the FCC said in announcing the re-charter. Dennis Roberson, Executive Chairman of entigenlogicTM, chairs the Council. Michael Ha, Deputy Chief of the FCC Policy and Rules Division, is the Designated Federal Officer. ARRL Letter. 6/23/2019

## Science and Technology: An Ultra-Small Transmitter for VLF?

A study, "A high Q piezoelectric resonator as a portable VLF transmitter," by Stanford University SLAC National Accelerator Laboratory researcher Mark A. Kemp et al., in the April 12, 2019, edition of Nature Communications describes using a small rod of lithium niobate and taking advantage of the material's piezoelectric properties to convert an imposed voltage to a mechanical effect, which in turn radiates an electromagnetic current.



The National Accelerator Lab describes the research in an article, "SLAC develops novel compact antenna for communicating where radios fail," which said a new type of pocket-sized devices "could be used in portable transmitters for rescue missions and other challenging applications demanding high mobility" where conventional radios don't work, such as under water, through the ground, and over very long distances through air. "The device emits VLF radiation with wavelengths of tens to hundreds of miles. These waves travel long distances beyond the horizon and can penetrate environments that would block radio waves with shorter wavelengths."



A new compact VLF transmitter, developed and tested at SLAC, consists of a 4-inch-long piezoelectric crystal (clear rod at center) that generates VLF radiation. [Photo courtesy of Dawn Harmer/SLAC National Accelerator Laboratory]

"Our device is also hundreds of times more efficient and can transmit data faster than previous devices of comparable size," Kemp, the project's principal investigator. "Its performance pushes the limits of what's technologically possible and puts portable VLF applications, like sending short text messages in challenging situations, within reach."

The paper by Kemp et al. points to the fact that large size and high loss render conventional transmitter techniques inadequate. "We show that a strain-based, piezoelectric transmitter can overcome many of the fundamental limitations of conventional electrically small antennas (ESA)," the paper's abstract reads. "These transmitters can resonate in a very small footprint while exhibiting low losses."

Taking a deeper dive: "Traditionally, a disadvantage of passive high-Q antennas was low bandwidth. Utilizing piezoelectricity as the radiating element allows us to dynamically shift the transmitter resonant frequency. Therefore, high total Q (low loss) no longer constrains the system bandwidth. These are our fundamental advancements: Achieving an exceptionally high system Q with no external impedance matching network and an effective fractional bandwidth beyond the passive Bode-Fano limit. Although demonstrated at VLF, this concept straightforwardly scales to other frequency bands." ARRL Letter, 5/2/2019

## Spectrum: FCC Adopts Order on Use of Bands above 24 GHz for Next-Gen Wireless

The FCC on April 12 adopted a Report and Order (GN Docket 14-177) aimed at making available millimeter wave (mmW) spectrum at or above 24 GHz for fifth-generation (5G) wireless, Internet of Things, and other advanced spectrum-based services, including satellite broadband services. The FCC first adopted rules to allow Fixed-Satellite Service (FSS) Earth stations to be individually licensed to transmit in the 50.4 - 51.4 GHz band using criteria identical to those applicable in the 24.75 - 25.25 GHz band.



"This action will allow FSS operators to provide faster, more advanced services to their customers," the FCC said in announcing the action.

The Commission also established a coordination process to accommodate the military's potential need for additional sites in the upper 37 GHz band (37.6 - 38.6 GHz band) in limited circumstances, while protecting the interests of non-federal licensees in this band.

"The[se] steps are an integral step toward the auction of the Upper 37 GHz, 39 GHz, and 47 GHz spectrum bands slated to begin later this year," the FCC said. ARRL Letter, 5/9/2019

# SPOT the T

Joe, WB6MYD

## INFORMATION



1. **Attendance drawing:** The kitty for our June meeting will be \$ 25.00 since the person drawn in May wasn't present. You must be present to win. Please join us June 20, 2019

2. **Thank you:** I am sure Dean-N5DQ presented a great topic at the meeting, I am sorry I missed it. The Calif Great Shakeout is if nothing else attempting to make us all aware of the possibility of this catastrophic earth quake here in California. We should all be prepared even if we all think this will never happen. As amateur radio operators we are obligated to assist our communities with support in case just like that. Other places they might have tornadoes or what have you, we have earthquakes. The obligation part comes into play because we as amateur radio operators have been given privileges no one else has for free. We use are spectrum according to our license and so much more. We can experiment, use other technology and provide ideas to make things so much better. Look at some of the historical moments of our lives. Hams have contributed so much to technology used by so many in our modern world. I hope Dean's presentation also provided some incentive for us to join emergency communication groups. Hopefully it never will come to this - but we should be prepared.

3. **Missing:** Yes, I was missing from last months meeting. I have a twin brother (not identical) and we like to celebrate our birthday together every 5 years. We do that in the old country since he is unable to travel. The party was a great success and I was very happy to meet family members again and some for the first time too. Family is important as we all know. So, I am back and going at it again.

4. **Field Day 2019:** This year we plan to have our Field Day at Ernie Howlett Park in Rolling Hills. (25851 Hawthorne Blvd., Rolling Hills, CA 90274 ). The Field Day site is easy to find, we have plenty of parking and found this to be an ideal location for several reasons. The FD Chairman wants to be more in the public sphere. It also has some

natural height above sea level and has some good possibilities. If you go to the ARRL website, click on Field Day locator and on the top left side it asks you to fill in the site you're looking for. Enter W6SBA and a map will pop up which you'll have to magnify several times and soon it will show a whole lot of information on that park. If you select "Satellite" you will see us placed at a volley ball court, which is where things will be set up. We will let you all know soon how to get there and sign up and on and on. Your help will be greatly appreciated or if you just want to see how we're doing heck come on by of course.

5. **Repeater protocol:** In keeping with courtesy and good operating habits, here are a few repeater protocol reminders.

Unlike HF communications, repeater operation does not lend itself to readable pileup traffic. We need to allow the repeater to drop out after the last transmission before the next operator initiates traffic. A courtesy tone on the W6SBA repeater signifies the end of a transmission. This will also allow time for a 3rd operator to join a conversation. It could be something urgent so give a pause between transmissions.

Also, do not transmit without identifying. Review FCC Part 97 on this policy. For example, keying your microphone to turn on the repeater without saying your station call sign is illegal. If you do not want to engage in conversation, but simply want to check if you are able to access a repeater, simply say "(insert your call here) monitoring"

In using proper operating procedures, we can fulfill our need to occupy the band and comply with FCC rules. Enjoy what the service the repeater system provides and use it appropriately.

6. **Equipment for sale:** A Icom IC 251A. This is all mode transceiver for the 2m band. FM, USB, LSB, and FM which is a real nice radio. We are offering this one to club members first. If you're interested give me a call 310-328-0817 or email [jmlanphen@gmail.com](mailto:jmlanphen@gmail.com). Asking price is \$ 75.00 or best offer.

## 2019 CLUB OFFICERS

**President:** Scott –N6LEM, 310-530-9889 [scottsimpson126@gmail.com](mailto:scottsimpson126@gmail.com)

**Vice President:** Alex – KD6LPA, 310.530.6614 [kd6lpa@socal.rr.com](mailto:kd6lpa@socal.rr.com)

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**Council:** Paul – KK6BY, 310-676-0212 [kk6by@arrl.net](mailto:kk6by@arrl.net)

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**Past Pres:** Ray – WA6OWM, 310-370-1913 [wa6owm@arrl.net](mailto:wa6owm@arrl.net)



## CALENDAR

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

**Club Meeting** - 3rd Thursday of the month  
**June 20, 2019 - 7:30 p.m.**  
Room 1 in the Richard Hoffman  
Educational Center at Torrance  
Memorial Medical Center

**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,  
**June 29, 2019**, 7-11 a.m.

**VE Sessions** - Scheduled on Saturday of even months  
Contact Joe, WB6MYD with questions  
(All VE sessions are scheduled for Room 4 in the Health  
Conference Center)

**Social Event** - Contact: Joe WB6MYD  
Phone: (310) 328-0817  
jmlanphen@gmail.com

## CLUB SERVICES

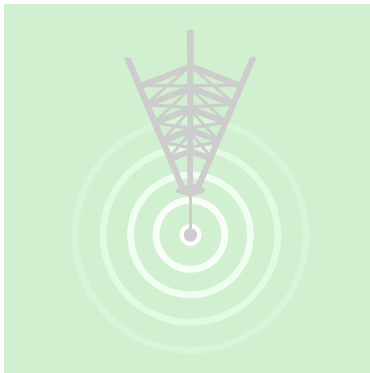
Awards Manager (HF/VHF)	Cliff - K6LH
Health & Welfare	Joe - WB6MYD
Swap Meet Chair	Tom-KI6RC, Chuck- K6CSH., Bill-KQ6Z
VE Test Liaison & Sessions	Betty Barch-N6VZF N6VZF@arrl.net (310) 545-6422
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**South Bay Amateur Radio Club Repeater**  
**224.38 MHz · PL - 192.8 Hz Offset -1.6 MHz**  
(See Calendar for Weekly Net Times)

## NEWSLETTER SUBMISSION

South Bay Amateur Radio Club  
P.O. Box 536  
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TO:



Address Correction Requested

*A COMMUNITY SERVICE ORGANIZATION*

W6SBA

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