



July 2016

ARCO *vet*

A Community Service Organization Dedicated to Amateur Radio Since 1970

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Hi everyone:

We had a very successful Field Day this year although I thought that the attendance was down over past years with only twenty-five club members participating. Although the principal purpose of Field Day is to demonstrate our ability to set up an emergency station in a short period of time and then to operate it successfully it is also nice to both our competitive spirits and egos to score well. And did we ever! Mostly due to the return of our Morse Code Guru Ray, WA6OWM, we doubled our QSOs over last year and tripled our QSO point total thanks to Ray's 200 Morse contacts. Well done Ray! We also only missed a couple of the bonus point categories so we should have an excellent overall score.

No event of this size is put on without the efforts of many people and this one was no different. Both due to space constraints and to the limits of my ageing memory I can't list everyone who contributed but there are some who deserve special thanks. They include: this year's Council who spent many hours planning this year's event; Joe, WB6MYD, for providing lunch; Rob, WB6KMX, for cooking the delicious tri tip we had for dinner; Ed, KN6JN and his wife Blair and their friends Terri and Kathy for our Sunday breakfast omelets; all the people who showed up Friday night to set up antennas, showed up early Saturday morning to set up equipment, and stayed late on Sunday to take stuff down and put it away. A very special thank you goes to Jerry, KJ6JJ, who programmed all of our computers, set them up, tended to them throughout the event, and who then figured out our scores for our official entry. Finally, a huge thank you goes to Joe, WB6MYD, who has dedicated a significant portion of his garage and back yard to the storage of all of our equipment. Without his effort there would be no Field Day for us. And, thanks to everyone who helped out, attended, and operated that I have not mentioned individually.

Summer is here and that means a Picnic. We have scheduled our first of the Summer for **Saturday, July 16th** at de Portola Park starting at about 10:00 AM. As usual details and maps will be forthcoming. We will have food and drinks provided by the club and some activities. Bring your HTs. Family is always welcome but we would appreciate it if you would let Joe know if you are coming so that we can plan on providing an appropriate amount of food. Upcoming events include JOTA and a probable Club building project. More on this later if our plans work out. That's it for this month. I'll see you all at the next meeting!

73,
Alan

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The July Meeting of the SBARC will be by Tom, KI6RC and Bruce, KK6BJ who will be giving a presentation on their recent adventures with near space ballooning. There will be a special emphasis on the use of Arduino microprocessors and their use in tracking and recovering high altitude packages.

Tom and Bruce are among the many club members with a deep fondness for homebrew projects and making practical and successful—as well as sometime unsuccessful and impractical devices to explore near space.

A brief review of high altitude ham radio including the use of APRS, QRPP HF beacons for foxhunting, temperature and pressure telemetry, and spectacular photography will be included in their presentation.

Their third flight involved many club members who were able to track their flight in real time and share in the successful recovery of the entire and intact package.

Please join us for what promises to be a very interesting show and tell on July 21st.

Bruce, KK6BJ



- 1) If I start with \$10 and spend all but \$3, how much do I have left?
- 2) I went to a store and bought a number of the same item, in fact as I bought as many as the item cost. My bill (without tax) came to \$1.69. How many did I buy?
- 3) Find a four letter word ending in ENY.
- 4) Find a six letter word composed of only two letters, three of each

Answers to June's Quiz

- 1) What two numbers have a difference of 1 while their cubes have a difference of 61? **4 and 5.** $5-4=1$ and $5^3-4^3=125-64=61$. *Solve by letting the two numbers be x and $x-1$. Then solve $x^3-(x-1)^3=61$ or by trial and error.*
- 2) Picture a triangular figure. There are six people standing along each side including one at each angle. How many people are there in all? **15.** *There are 4 people in the middle of each side of the triangle. So $3 \times 4 = 12$. Then there is one person at each vertex of the triangle which means 3 more. So $12 + 3 = 15$.*
- 3) What word describes a woman who does not have all her fingers on one hand? **Normal.** *Most people have some fingers on the other hands as well.*
- 4) Consider a normal chess or checkers board. Remove the squares from two diagonally opposite corners. Now take a set of blocks, each of which will cover two adjacent squares, i.e., each block is a rectangle one x two squares in size. Can you cover the checkerboard completely with the blocks if you must cover two colors each time you place a block on the board? **No,** *because diagonally opposite squares are the same color. The board starts with 32 black and 32 red squares. After removing the two squares, you have, say, 30 black and 32 red squares. So, when you have covered all of the black squares, you will have two red squares left over.*

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

FCC Transitions to New Electronic Comment Filing System (ECFS)

The FCC transitioned to a new Electronic Comment Filing System (ECFS) with a "hard launch" on Monday, June 20. The FCC said its legacy system no longer is available, but all documents and files remain accessible in the new system, and saved links (bookmarks or favorites) to documents and proceedings should not need to be adjusted. The modernization project is expected to significantly improve the resiliency and performance of ECFS, the FCC said.



"This system contains the entire history of docketed proceedings from 1992 to the present," the FCC said. "New submissions will be added to the public record. We will continue to refine this system in response to user feedback."

The ECFS has become the most popular way to gather public comments on Amateur Radio-related proceedings. The FCC said the public can use the ECFS to retrieve any document in the system, including selected pre-1992 documents that have been scanned into the system. The system also lets users browse popular proceedings. It's also possible to submit a filing via the ECFS, using Word, PDF, or Excel files, and the system lets filers check the status of their submissions and to see if a filing now is available online. ARRL Letter June 30, 2016

Two Radio Amateurs Set to Head for the International Space Station

Two Amateur Radio licensees are part of the International Space Station ([ISS](#)) crew increment bound for the orbiting outpost this week. NASA astronaut Kate Rubins, KG5FYJ, astronaut Takuya Onishi, KF5LKS, of the Japan Aerospace Exploration Agency (JAXA), and cosmonaut Anatoly Ivanishin of Roscosmos will launch early on July 7 (0136 UTC) from the Baikonur Cosmodrome in Kazakhstan. The trio will spend approximately 4 months on station and will return to Earth in October.

An upgraded *Soyuz* MS-01 spacecraft will carry Rubins, Onishi, and Ivanishin into space. They will test modified systems for 2 days — 34 Earth orbits — before docking with the ISS on July 9. According to NASA, the modified *Soyuz* is equipped with upgraded thrusters that are fully redundant, additional micrometeoroid debris shielding, redundant electrical motors for the *Soyuz* docking probe, and increased power with more photovoltaic cells on the spacecraft's solar arrays. This week's launch will mark the first of at least two missions in which enhanced *Soyuz* hardware will be tested and verified.

Once the hatches between the *Soyuz* and the ISS have been opened, Expedition 48 Commander Jeff Williams, KD5TVQ, of NASA, and Flight Engineers Oleg Skripochka, RN3FU, and Alexey Ovchinin of Roscosmos will greet their new crewmates.

The Expedition 48 crew members will continue experiments in biology, biotechnology, physical science, and Earth science. Rubins, Onishi, and cosmonaut Ivanishin will replace Expedition 47 Commander Tim Kopra, KE5UDN; Flight Engineer Tim Peake, KG5BVI/GB1SS, and Yuri

Malenchenko, RK3DUP, who returned to Earth in mid-June after a little more than 6 months in space. ARRL Letter, dated 07/05/16



Expedition 48 crew members (L-R) Kate Rubins, KG5FYJ; Anatoly Ivanishin, and Takuya Onishi, KF5LKS. [NASA photo]

CLOSE X

The Doctor Will See You Now!

"Are Linear Amplifiers Really Worthwhile?"

That's the topic of the current (June 30) episode of the "ARRL The Doctor is In" podcast. Listen...and learn! Sponsored by DX Engineering, "ARRL The Doctor is In" is an informative discussion of all things technical. Listen on your computer, tablet, or smartphone -- whenever and wherever you like!



Every 2 weeks, your host, QST Editor in Chief Steve Ford, WB8IMY, and the Doctor himself, Joel Hallas, W1ZR, will discuss a broad range of technical topics. You can

also e-mail your questions to doctor@arrl.org, and the Doctor may answer them in a future podcast. Enjoy "ARRL The Doctor is In" on Apple iTunes, or by using your iPhone or iPad podcast app (just search for "ARRL The Doctor is In"). You can also listen online at Blubrry, or at Stitcher (free registration required, or browse the site as a guest) and through the free Stitcher app for iOS, Kindle, or Android devices. If you've never listened to a podcast before, download the ARRL beginner's guide. Just ahead: "HF Propagation" on July 14. ARRL Letter June 30, 2016

FCC Says "No" to Lifetime Amateur Radio Licenses

The FCC has denied the petition of an Arizona radio amateur, who had petitioned for lifetime Amateur Radio licenses. Mark F. Krotz, N7MK, of Mesa, had filed his Petition for Rule Making (RM 11760)



with the FCC last November, and the FCC invited public comments in February. Krotz wanted the FCC to revise §97.25 of its rules to indicate that Amateur Radio licenses are granted for the holder's lifetime, instead of for the current 10-year term. Hundreds of radio amateurs commented on the petition, but the FCC was not swayed by those favoring the idea.

"Based on our review of the record, we are not persuaded that the petition discloses sufficient grounds for the requested rule change," the FCC said in a June 21 Order. "Krotz's primary argument is that extending the term of amateur licenses to the lifetime of the holder would reduce the Commission's administrative and personnel costs, but it is not clear to us that the proposal actually would enhance administrative efficiency." That's because the vast majority of license renewals are submitted online and processed automatically by the Universal Licensing System (ULS), "with minimal staff involvement," the Order said.

The FCC said it had further reduced its overhead by no longer routinely mailing paper licenses. "[I]f license terms were extended to the holder's lifetime, we likely would receive more cancellations on account of the licensee's death, which are labor-intensive, because staff must carefully verify the deceased's identity and licenses in order to guard against erroneous cancellations," the FCC said in its Order, signed by Wireless Telecommunications Bureau Deputy Mobility Division Chief Scot Stone.

Krotz argued that the General Radiotelephone Operator License (GROL) already is issued on a lifetime basis, but the FCC said that's not a comparable situation, because an Amateur Radio license is both an operator's license and a station license, "and there is no Commission precedent for issuing a lifetime station license." ARRL Letter June 23, 2016

Thursday Night Net



Please join us on W6SBA 224.38 minus offset and the PLat 198.2 hz You can share your experiences or just say hello!

FCC Technological Advisory Council Initiates Noise Floor Inquiry

Radio amateurs frequently complain about increasing noise from a variety of sources, so it should be welcome news that the FCC Technological Advisory Council (TAC) -- an advisory group to the FCC -- is investigating changes and trends to the radio spectrum noise floor to determine if there is an increasing noise problem, and, if so, its extent. The FCC Office of Engineering and Technology (OET) announced the TAC study in a Public Notice and invited comments and answers to questions that the TAC has posed in the notice. The comment deadline is August 11. The TAC said it is trying to determine the scope of any noise issues and has invited "quantitative evidence" of noise problems, as well as recommendations on how to perform a noise study.

"The TAC is requesting input to help answer questions about the study of changes to the spectrum noise floor over the past 20 years," the announcement said. "Noise in this context denotes unwanted radio frequency (RF) energy from manmade sources." Like many spectrum users, TAC members expect that the noise floor in the radio spectrum is rising as the number of devices in use that emit radio energy grows."

The ARRL representative on the TAC, Greg Lapin, N9GL, co-chairs the TAC Spectrum and Receiver Performance Working Group with Lynn Claudy of the National Association of Broadcasters. Lapin also serves as chairman of the ARRL RF Safety Committee.

The TAC said that its search for "concrete evidence of increased noise floors" has turned up only "limited available quantitative data" to support its presumption of a rising noise floor. The TAC said it wants to find ways to add to the available data so it can "answer important questions" on the topic for the FCC.

The TAC said that responses to the questions it has posed in the Public Notice will help it to "identify aspects of a study to determine trends in the radio spectrum noise floor." The Public Notice included information on all methods of responding to the inquiry. ARRL is planning to comment. For more information, contact Greg Lapin, N9GL. ARRL Letter June 23rd



Signal Heard Across the Atlantic

A 2 meter signal from the UK, reflected off the structure of the International Space Station (ISS) on May 2, was heard across the Atlantic. Following 2 weeks of preparation, Tim Fern, G4LOH, in Cornwall (IO70jc), and Roger Sturtevant, VE1SKY, in Nova Scotia (FN74iu) attempted a FSK441 contact.



Both stations aimed at the calculated grid HO11nl for a 144.175 MHz contact attempt with a mutual

window of less than 1 minute. VE1SKY was able to copy G4LOH at a distance of 4441 kilometers (approximately 2753 miles). This was the first signal received via ISS bounce from Europe to North America, and the first intentional signal heard via ISS reflection in any direction across the North or South Atlantic.

While two-way communication did not happen, the reception is being verified as a possible DX record for satellite reflection.

Later in May, Fern, operating as GK4LOH and transmitting in CW, was received twice in the much-closer GN37 grid by VO1HP at VO1FN in Newfoundland. In 2014, RSGB VHF Manager John Regnault, G4SWX, received a 2 meter signal from VC1T, where a team was trying to win the Brendan Trophy for the first transatlantic contact on 144 MHz. Upon investigation, it was determined that the VC1T FSK441 signal that G4SWX heard also had bounced off the ISS rather than via terrestrial propagation and would not qualify for the Brendan Trophy, offered by the Irish Radio Transmitters Society (IRTS). The Brendan Trophy will recognize the first "traditional mode" two-way contact (ie, SSB or CW) capable of being copied without machine assistance. ARRL Letter, June 2, 2016



1. **Attendance drawing**: Another winning ticket was drawn. Steve-KJ6VWN was the lucky recipient not quite. Steve had left before the drawing took place and therefore cannot receive the kitty, sorry Steve. The July drawing will be for \$ 25.00. Be present and be the lucky one to have your name drawn as always.

2. **FD 2016 Stats**: Yes we did it again. Thanks to Ray-WA6OWM, Jerry-KI6RRD and Bob-W6QAM we made a lot of contacts, thank you guys. This isn't quite fair of course because a lot of others contributed to number of QSO's made. It really was great to see FD 2016 be as successful as it was for the South Bay ARC. So let's recap briefly. Antenna's for the first time were all set up on Friday night. This was done by a few good members as encouraged by our FD Chair Bruce. Saturday morning saw us bring up the chairs and tables and all the equipment again set up by a few good man. Jerry set up the computer network for our logging which he had set up prior also, thank you all guys. At 1100 hrs we went on the air. The first 7 contacts were promptly made by Chuck-K6CSH using solar power worth 100 points. As operations continued by several other operators no less by Ron and Andrew FD 2016 had a good start. Lunch was picked up at noon and set up for taking care of the hunger pangs felt by many. The regular FD routine was continued till dinner time when Rob brought in his fabulous tri tip which was supplemented by salad and potato salad from James. All of the tri tip was gone in no time at all. All day we enjoyed munchies having been picked up by Alan. Drinks and Coffee and good camaraderie from those able to sit down for that was enjoyed as well, social is an important part of this as well as you all know. Several little problems had been solved, coax, connectors and the likes had all been handled as thing went along. The only one that continued to be a bit of a problem was the digital ops having a problem getting it going till Ray assisted Bruce in setting it up for use as an FD station. After dinner the CW and Phone stations on HF got going in all earnest. Ray making the majority of CW contacts assisted by Bob. Jerry had also made phone contacts and VHF continued by several operators. Sunday morning the breakfast crew came in and provided us with a 4 star breakfast by Blair, Kathy, Ed and Terri. Great break-

fast to top all this off. 1100 hrs on Sunday we started packing things up again and with the help of a few was all put back in storage again at Joe's. This was all finished by about 2:00pm and those having worked so hard to make this the great success were able to take the long deserved break. While talk for FD 2017 was heard we will need to talk about that more of course. Thank you one and all for making this year the best FD in a long time. Joe-WB6MYD

3. **Picnic**: Yes by the time you read this it to may be history. Picnic on July 16, meeting on July 21. Anyway, the plan is to meet at the De Portola park in Torrance on Saturday July 16 around 10:00am. Along with the food such as hot dogs several activities are planned. You really it is hoped you would not have missed this. Info on this will be made available via e mail. While radio activity will likely be kept at a minimum, trans-mitter hunt is being planned though and maybe some projects to be shown and or planned. Stay tuned for more information on this.

4. **ARRL SW Div Convention**: Yes the SW Div is asked to put on another SW Div convention next year in September. Location will be the Marriott Hotel and will be as spectacular as ever. A lot more info on this as time goes on.

5. **DIY Projects**: At the upcoming July meeting you will be asked as to your preference in building your own project, club project or take part in an Arduino project. At our last meeting you were asked for your thoughts on an little transceiver kit. This is now being joined by others and so we need to know what you prefer. Please check Alan's column for more on his, Alex wants to do an Arduino project and we could also do another club project. Either case you will be asked to suggest something.

6. **JOTA**: While you're enjoying your summer vacation it is time again to start thinking about the upcoming JOTA event in October. Details are somewhat vague still unless you want to really embrace this activity. So we are asked to do the Cabrillo Beach facility as in the past, the USS Iowa is also again in the planning stages. We need to work together with this to make this the deserved success. Please stay tuned.

Joe-WB6MYD

CALENDAR

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

Club Meeting - 3rd Thursday of the month
June 21, 2016 - 7:30 p.m.
Torrance Memorial Med Center
Health Conference Center, Room 3

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 30, 2016, 7-11 a.m.

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

Social Event - Contact: Joe WB6MYD
Phone: (310) 328-0817
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CLUB SERVICES

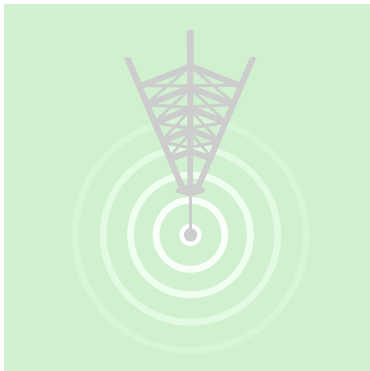
Awards Manager (HF/VHF)	Cliff - K6LH
Health & Welfare	Joe - WB6MYD
Swap Meet Chair	Tom-KI6RC & Chuck-K6CSH
VE Test Liaison	Joe - WB6MYD
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South Bay Amateur Radio Club Repeater
224.38 MHz · PL - 192.8 Hz Offset -1.6 MHz
(See Calendar for Weekly Net Times)

NEWSLETTER SUBMISSION

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