



April 2021

ARCOver

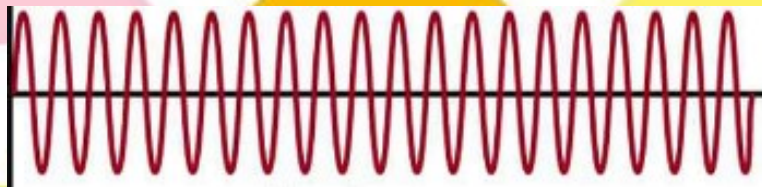
A Community Service Organization Dedicated to Amateur Radio Since 1970

In this issue:

- ◆ President's Message
- ◆ 2021 Club Officers
- ◆ Cooperative Effort Under Way
- ◆ Meeting Info
- ◆ Serendipitous Synergy
- ◆ ARISS Ham Station
- ◆ Amateur Radio Community Invited
- ◆ Celebrate World Amateur Radio Day
- ◆ Amateur Radio Gets a Partial Reprieve



Hopp'n Around



the Waves!

E-mail: W6SBA@arrl.net



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

President's Message

SBARC members,

The word is, California will return to normal on June 15th. I guess that will be the new normal because it's going to depend on peoples comfort level. Personally, I'll be happy to get past this mask business. I keep forgetting the mask. So if our members feel comfortable in the new normal I think we can put some plans in place. I'll work this at the council meeting and determine the place and date. On a personal note, I received the J&J vaccine last week with no pain and no side effects. Hopefully it wasn't a placebo! For now keep your virus precautions guard up. Stay positive and optimistic as we move forward...

We are still experiencing some success with the balloon flights. The last launch on 03-20-2021 was by Joanne KM6BWB for a national school contest program called "Equinox". We have a balloon launch. This launch was tagged KM6BWB-3 and launched from TMMC at about 7:50am. You will be able to follow it on APRS.fi under her call sign with -3 designator. My last check showed it east of Japan on 03-28-2021. Sometimes these balloons can linger along time without checking in. This is the case with APRS and remote places lacking amateur ground stations. Take a look for this flight or the others and you will find the record of their last check in. WSPR is a 20m mode with much more range but lacks some reporting detail fidelity.

For the April club meeting, Wayne Yoshida KH6WZ, will do his presentation on "Tool Free Troubleshooting". Wayne Yoshida is a Ham of many talents and experiences, technical writing, amateur radio columns in 73 magazine, microwave projects, contesting on 10GHz, building projects and apparently barbequing. Amateur radio and food always seem to go good together. See the inside column for information about Wayne's background. Wayne should have a very informative presentation for the club. Tool free troubleshooting sounds to me like a unique concept. Please tune into our Zoom meeting at 7:30PM March 18th with Wayne Yoshida and see what new information you can gain to assist your ham radio station operation.

Upcoming monthly club activities include, the SBARC virtual Zoom club meeting on April 15th at 7:30PM. And, the other things we use to do: The TRW/NGC swap meet remains cancelled until? (We are keeping an eye on this event to return.) After the swap meet a few of us use to head over to Denny's. These have all been suspended until after the COVID shutdown.

As always, it's your amateur radio club, let us know what you would like to see happening with your club

73's...
Scott-N6LEM



CLUB OFFICERS

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Past Pres: OPEN

Cooperative Effort Under Way to Resolve Potential 70-Centimeter Interference Issue

ARRL.com 03/23/2021

ARRL, the FCC, and the US Department of Defense are cooperating in an effort to eliminate the possibility of amateur radio interference on 70 centimeters to a future missile control system at White Sands Missile Range (WSMR) in New Mexico. The Defense Department's Regional Spectrum Coordinator contacted the FCC in March, seeking information on whom to contact regarding amateur transmissions operational on 70-centimeter frequencies slotted for use on the new control system.



The FCC, in turn, asked ARRL to oversee the coordination efforts. It is to be noted that the Amateur Radio Service is a secondary service on the band. Investigation revealed that the potential problem was not with individual operators or repeaters, but with RF control links at 420 – 430 MHz used to establish a linked repeater system within New Mexico. “Based on the investigation, and with the support of the FCC, the owners of the RF control links being used in the 420 – 430 MHz portion of the amateur allocation within a certain proximity to WSMR are being asked to re-coordinate the link frequency to a new one above 430 MHz,” explained ARRL Regulatory Information Manager Dan Henderson, N1ND.

ARRL enlisted the assistance of the state's designated repeater frequency coordinator for information on specific links in that part of the band. New Mexico Repeater Frequency Coordinator Bill Kauffman, W5YEJ, agreed to work with the control link operators to find new frequencies that will meet the needs of the link operators.

“Time is a factor in this request,” Henderson said. “The new WSMR systems are in advanced testing and will become fully operational by early summer 2021.” The negotiated deadline for the affected control links to change frequencies is set for May 31, 2021.

“It appears a total of 32 control links will have to be addressed,” Henderson said. ARRL has mailed letters to each of the RF control link operators, based on the recordkeeping of the frequency coordinator, to advise them of the DoD's request. “Any links with the potential to affect the identified control systems at WSMR still in operation after May 31, 2021 will be subject to action by the FCC.”

Henderson said the changes should have no direct impact on the use of any local repeater, but until all the affected RF control links are transitioned to new frequencies, certain links may be temporarily inoperative. Links unable to be relocated by May 31 will have to be shut down until the situation can be resolved. ARRL will maintain contact with the FCC to advise it of the status of the coordination efforts.

APRIL
Meeting
April 15th at 7:30 p.m.
on Zoom


Expect an email with the invite to the meeting. Click the link in the email and Zoom software launches to join.

About Wayne Yoshida KH6WZ Wayne Yoshida is a Technical Writer and CQ Amateur Radio Magazine columnist who brings a cornucopia of writing, editing, technology and marketing skills to his everyday work.

Wayne's teen age ham radio hobby influenced his life and continues today, turning various personal interests into an interesting and fun writing, editing, marketing and selling journey. Working with technical products makes Wayne excited about coming to work every day.

His most memorable career event is an example of this. As a consultant Public Information Officer for NASA Mission Control during three Space Shuttle missions, Wayne's radio hobby combined with his speaking and writing ability to enable fast and accurate responses to news reporters from around the world. Hundreds of articles based on news releases and interviews emphasized the educational value of ham radio and electronics and its viability as an emergency communication system for the space program.

Ham Radio Highlights:

- Most memorable experience: Working at NASA Mission Control during the first manned ham-in-space mission, Dr. Owen Garriott, W5LFL, in 1983
- North America Two Way Communication Distance Record on 10 GHz (X band) - 1,448 km / 899.75 mi., August 2007
- Contributing Editor, CQ magazine (“The Beginner's Corner,” since January 2003, now “The Ham Notebook” since March 2010)
- Worked at ARRL Hq. in Newington, CT as Public Information Officer, 1982 to 1984
- Past president, UCLA Amateur Radio Group, W6Y-RA
- HF contester and DXpeditioner (W1AW, NK7U, W5RRR, 8P6BBS, 8P4B, 8P9BB, 7J1AFZ, J68DX, J68WZ)
- Licensed since 1976

Serendipitous Synergy

BY RICH MOSESON,* W2VU

*Email: <w2vu@cq-amateur-radio.com>

<https://cq-amateur-radio.com/> April 2021

What does grinding a crystal have in common with winning the CQ World Wide DX Contest? More than you might think...

It all started when Lisa Roberts, AL6Y, a protégé of Contributing Editor Eric Nichols, KL7AJ, submitted an article about learning from Eric how to hand-grind vintage crystals to bring them into the ham bands to use with vintage radios. Interesting article for some future issue, I thought. Next, I got KØ-NEB's Kit-Building column for this month (p. 50), which is focused on the Four States QRP Group's "Crystal Spotter," a kit you can build to tune your receiver to the exact frequency of a crystal-controlled transmitter (nowadays generally QRP). Hmm, I thought, "some future issue" for Lisa's article has just become this issue (and you'll find her article on p. 28).

Within Lisa's article is a link to a World War II-vintage newsreel-type movie called "The Crystal Goes to War." It's all about how radio crystals were manufactured to help the war effort (40 minutes of fascinating viewing!). It turned out that both the crystals and the movie were produced by Reeves Sound Laboratories in New York City. Reeves Sound was owned by Hazard "Buzz" Reeves. In the movie industry, Reeves was best known as the head of Cinerama and for developing the process to add a magnetic stripe to movie film. This allowed sound and picture to be recorded and played back on the same camera / projector, rather than being recorded separately and then synchronized for playback. In ham radio, though, Buzz Reeves was K2GL, owner of one of the early contest superstations at his home in Tuxedo Park, New York. Buzz hosted multi-multi (multioperator, multi-transmitter) operations under various call signs (frequently N2AA) during the 1960s, '70s and '80s. He was the first inductee into the CQ Contest Hall of Fame in 1986 and, in 2006, was inducted into the CQ Amateur Radio Hall of Fame for his professional accomplishments (which we didn't know at the time included manufacturing crystals for military radios during World War II!).

Not only was Buzz's station perennially among the top scorers in most major contests, but perhaps more importantly, it served as a training ground for the next generation of contesters. Some of the biggest names / calls in contesting today can be found in the operator lists of Buzz's multi-multis. Many of those calls also appear in the SSB results of the 2020 CQ World Wide DX Contest, which start on page 14 of this issue.

Multi-multis were a rarity in last year's CQWW due to the COVID-19 pandemic (see our cover photo for an example of COVID-safe contesting at W3LPL), but more hams than ever before took advantage of being stuck at home to operate and submit logs. The SSB weekend saw a spike in logs of nearly 20% over 2019's record number. However, the number of active countries was down due to canceled contest DXpeditions, so competitors needed to adjust their operating strategies accordingly. The balance between numbers of contacts and numbers of multipliers is the focus of this month's Contesting column (p. 84).

So, through a combination of (minimal) scheduling and (much more) serendipity, we have synergy between four different articles in this issue, each on seemingly unrelated subjects. More than anything else, though, this is an illustration of an essential element of ham radio — no portion of our hobby exists in a vacuum, whether it's contesting, kitbuilding, QRP, or even crystal-grinding. Everything overlaps, even if we don't realize it, and that's one of the many things that makes amateur radio — and amateur radio operators — so special. We each bring to the "party" different interests, abilities and experiences, and then bring them all together to accomplish nearly anything we set our minds to do in our shared passion for radio.

Also in this issue is a guide to good operating practices on FT8, as well as Professor Heisseluff's annual April visit (we didn't have space for it in the issue, but a "CQ Classic" lookback to the professor's 1994 article about possible ionospheric propagation on Mars — now confirmed to exist — is posted on our website under the "CQ Overtime" tab). And speaking of propagation, NW7US reports that the international Solar Cycle 24 Prediction Panel has determined that Cycle 24 officially ended in December of 2019 and that we are now more than a year into Cycle 25.

We also have a national survey of Section Emergency Coordinators in "Emergency Communications" on the state of amateur radio EmComm today (p. 37), a guide to severe weather nets (p. 44) and several antenna-related articles. Plus, we say hello to Trent Fleming, N4DTF, our new VHFPlus Editor, and 73 to MF/LF Editor John Langridge, KB5NJD, whose final column appears in this issue. Thank you, John, for your contributions to keeping CQ at the leading edge of new developments and activities in amateur radio.

Finally, our thoughts are with any of our readers whose homes and/or stations suffered damage from severe weather in late winter or early spring, and to those dealing with the ongoing impact of the COVID-19 pandemic. Now, if you'll excuse me, I need to go grind some crystals.

ARISS Ham Station in Columbus Module Is Once Again Operational

ARRL.com 03/15/2021

Some 6 weeks after going silent following a spacewalk that installed new antenna cabling, the Amateur Radio on the International Space Station (ARISS) ham station in the Columbus module is once again operational. The Columbus station, which typically uses the call sign NA1SS, is the primary ARISS amateur radio station used for school contacts and other activities. A January 27 spacewalk replaced a coax feed line installed 11 years ago with another built by the European Space Agency (ESA) and Airbus.

While the specific cause of the problem has not yet been determined, a March 13 spacewalk that restored the antenna cabling to its original configuration provided the cure. The plan to return the ARISS cabling to its original configuration had been a “contingency task” for a March 5 spacewalk, but the astronauts ran out of time. The ARISS work was appended to the to-do list for astronauts Mike Hopkins, KF5LJG, and Victor Glover, KI5BKC, to complete a week later.

“On behalf of the ARISS International Team, our heartfelt thanks to all who helped ARISS work through the cable anomaly investigation, troubleshooting, and ultimate repair,” ARISS International Chair Frank Bauer, KA3HDO, said. Bauer praised NASA, the ESA, Airbus, and ARISS-Russia lead Sergey Samburov, RV3DR. While the Columbus ham station was off the air, ARISS school and group contacts were able to continue using the ham station in the ISS Service Module on the Russian side of the station.

During the weekend spacewalk, Hopkins swapped out a cable for the Bartolomeo commercial payload-handling platform that had been installed in series with the ARISS VHF-UHF antenna feed line, returning the ARISS system to its pre-January 27 configuration. Hopkins raised a question concerning a sharp bend in the cable near a connector, but no further adjustments were possible.

On March 14, ARISS was able to confirm the operation’s success when Automatic Packet Reporting System (APRS) signals on 145.825 MHz were heard in California, Utah, and Idaho as the ISS passed overhead. ARISS team member Christy Hunter, KB6LTY, was able to digipeat through NA1SS during the pass. With additional confirmation from stations in South America and the Middle East, ARISS declared the radio system operational again.

Work during the March 13 spacewalk also made Bartolomeo operational. “Yesterday was a great day for all!” Bauer exulted. “Ad astra!”



Amateur Radio Community Invited to Take Part in MARS Exercise on 60 Meters

ARRL.com 04/07/2021

Radio amateurs are invited to take part in the MARS exercise now under way until April 10 in support of the US Department of Defense. The five USB channelized 60-meter frequencies are available for interoperability (communication between services).



By convention, Channel 1 is designated the calling channel. This convention is established to train the amateur radio community to reach out on Channel 1 in times of national emergency for information from the federal government.

The amateur radio community utilizes 60 meters on a secondary basis with federal agencies.

This and similar 60 meter interoperability exercises are conducted during the first full week of each month. Air Force MARS has Sunday, 0501 UTC through Wednesday, 1701 UTC. Army MARS picks up Wednesday, 1701 UTC through Saturday, 0501 UTC. There is no service crossover.

The operating convention for MARS 60-meter interface with the amateur community designates Channel 1 as primary. For the purpose of this exercise, Air Force MARS phone operations will originate on Channel 1, digital and CW operations on Channel 2. If congestion occurs, either mode may direct their traffic to Channels 3 – 5. The only authorized digital modes are CW, M110A, Olivia, MT-63, MFSK-16, FT-8, and RTTY. M110A will likely have little or no use in this exercise.

Celebrate World Amateur Radio Day 2021 on April 18

ARRL.com 04/01/2021

Sunday, April 18, is World Amateur Radio Day (WARD). This year marks the 96th anniversary of the International Amateur Radio Union (IARU), founded at the 1925 International Radiotelegraph Conference in Paris. ARRL cofounder and first president, Hiram Percy Maxim, 1AW, was there, and today, ARRL is the International Secretariat of the IARU. ARRL has resources that members can use to celebrate WARD, including graphics for social media posts and radio club websites, as well as a printable flyer.

IARU has chosen “Amateur Radio: Home but Never Alone” as the theme for WARD 2021. The theme acknowledges that during our physical distancing to reduce the spread of COVID-19, amateur radio stands out as a welcome respite for its variety of activities and opportunities.

Amateur radio experimenters were the first to discover that the HF spectrum was not the wasteland experts of that time considered it to be, but a resource that could support worldwide communication. In the rush to use these shorter wavelengths, amateur radio was “in grave danger of being pushed aside,” IARU history has noted, prompting the founding of the IARU. At the 1927 International Radiotelegraph Convention, amateur radio gained allocations still recognized today — 160, 80, 40, 20, and 10 meters. Over the years, the IARU has worked to give all radio amateurs new bands at 136 kHz, 472 kHz, 5 MHz, 10 MHz, 18 MHz, 24 MHz, and 50 MHz, and a regional European allocation at 70 MHz, and IARU defends those allocations.

The 25 countries that formed the IARU in 1925 have grown to include more than 160 member-societies in three regions. IARU Region 1 includes Europe, Africa, the Middle East, and North Asia. Region 2 covers the Americas, and Region 3 is comprised of Australia, New Zealand, the Pacific island nations, and most of Asia. The International Telecommunication Union (ITU) has recognized the IARU as representing the interests of amateur radio.

On World Amateur Radio Day, all radio amateurs are invited to take to the airwaves to share global goodwill with other amateurs. ARRL encourages members to promote the value of amateur radio to family and friends, and in their communities. Many volunteer ARRL Public Information Officers and Public Information Coordinators throughout the US use the time leading up to WARD as an opportunity to reach out to the media to share information about amateur

“The amateur radio community has a great story to tell on the occasion of World Amateur Radio Day,” ARRL Product Development Manager Bob Inderbitzen, NQ1R, said. “While the pandemic has kept many of us at home, radio amateurs have still been able to get on the air.” In June 2020, ARRL Field Day, held annually as amateur radio’s largest on-the-air operating event and demonstration, included nearly 19,000 participants making more than 1.8 million radio contacts in a single weekend.

“Over the last year, many ARRL-affiliated radio clubs and in-person ham radio events have moved their group activities online. This has helped to keep radio amateurs active and involved in the common pursuit of skill, service, and discovery in radio communication and radio technology,” Inderbitzen added.

Coincidentally, the SSB running of the ARRL Rookie Round-up falls on WARD (1800 – 2359 UTC). The event is aimed at hams licensed for 3 years or less. Take the opportunity to wish participants “Happy World Amateur Radio Day 2021” on the air.

Some WARD 2021 Activities around the Globe

- * **Bahrain:** The Amateur Radio Society of Bahrain will operate A91WARD during April 14 – 18, 2021, using SSB, FT8, and DMR modes.
- * **Canada:** Radio Amateurs of Canada are sponsoring a “Get on the Air on World Amateur Radio Day” special event.
- * **Germany:** The Deutscher Amateur Radio Club is operating DA21WARD for WARD, from April 18 through June 30. QSL to DK5ON.
- * **New Jersey:** The Fair Lawn (New Jersey) Amateur Radio Club will operate club station W2NPT on CW and phone throughout the day on April 18. In support of the theme of this year’s event, the operators will share information about the Health & Welfare Net that the club is running during the pandemic.
- * **Alabama:** The Disaster Communication Action Team will operate club station KD1CAT on April 18, in support of WARD. Operation will be on all HF bands.

VOIP/ECHOLINK *ROC-HAM* Conference node #531091 April 18 – 19, 13:00 – 05:00 UTC (9 AM EDT – 1 AM EDT) via VOIP/ECHOLINK *ROC-HAM* Conference node #531091/Allstar #2585. W2JLD, VO1UKZ, GW8SZL, and 2W0KYH will be net controllers. All stations from around the world are encouraged to check in. A QSL card will be available via SASE.



Amateur Radio Gets a Partial Reprieve on 3.5 GHz

03/22/2021

Pending future FCC action, amateur radio secondary use of the 3.3 – 3.45 GHz band segment may continue indefinitely. The FCC, as part of a lengthy *Second Report and Order* (R&O) for commercial licensing of 3.45 – 3.55 GHz



adopted on March 17, agreed with ARRL that continued access by amateur radio to 3.3 – 3.45 GHz should be allowed until consideration of the 3.1-3.45 GHz spectrum in a later proceeding. The FCC action in WT Docket 19-348 represents a partial — and temporary — reprieve from the FCC's December 2019 proposal to remove amateur radio from the entire band, and it makes available an additional 50 megahertz than an FCC proposal last fall to allow amateur temporary use of 3.3 – 3.4 GHz.

Amateur secondary operation in the 3.45 – 3.50 GHz band must cease 90 days after public notice that the spectrum auction has closed and licensing has begun. That is expected to happen early in 2022. The FCC announced the opening of 3.45 – 3.55 GHz for auction to commercial 5G interests on March 17.

The FCC stated that “While we adopt our proposal to bifurcate the band, we adjust our proposal and set 3450 MHz as the frequency at which the band will be split.” It agreed “with the ARRL’s assessment that the guard band is not necessary from a technical standpoint. We also recognize that the nature of amateur equipment realities makes the 50 megahertz at 3400-3450 MHz particularly valuable to amateur operators because it means existing equipment can continue to operate in the band for the time being.”

This allows “amateur operations to continue in the lower portion of the band while the [FCC and federal government users] continue to analyze whether that spectrum can be reallocated for flexible use,” the FCC said. The FCC had proposed splitting the band at 3.4 GHz, permitting amateur use in 100 megahertz of spectrum “while also providing a buffer to protect flexible-use operations at the lower edge of the 3.45 GHz band.”

“We therefore allow secondary amateur operations to continue in the 3.4 – 3.45 GHz portion of the band,” the FCC said. “We emphasize, however, that amateur licensees

remain secondary users, and those that operate on frequencies close to the 3450 MHz band edge must do so with particular caution to avoid causing harmful interference to flexible-use licensees in the 3.45 GHz Service, which hold primary status. In light of these considerations, while amateur operations between 3450 MHz and 3500 MHz must cease within 90 days of the public notice announcing the close of the auction for the 3.45 GHz Service, as specified in the *Report and Order*, amateur operations may continue between 3300 MHz and 3450 MHz while the Commission, NTIA, and the DoD continue to analyze whether that spectrum can be reallocated for commercial wireless use.”

“There is no expectation that such operations will be accommodated in future planning for commercial wireless operations in this spectrum, or that amateur operators will receive more than a short period of notice before their operations must cease,” the FCC said.



Please join us on W6SBA 224.38 minus offset and the PL 192.8 hz 7:30pm on Thursdays. You can share any info or just say hello!

CALENDAR

Council Meeting - 4th Wednesday of the month
Call Joe - WB6MYD (310) 328-0817

Club Meeting - 3rd Thursday of the month
April 15, 2021 - 7:30 p.m.

Via Zoom

(look for email invite from
jmlanphen@gmail.com a few days before)

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 **Cancelled Until Further Notice**

VE Sessions - **Cancelled due to Covid-19**
Contact Betty, N6VZF, 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

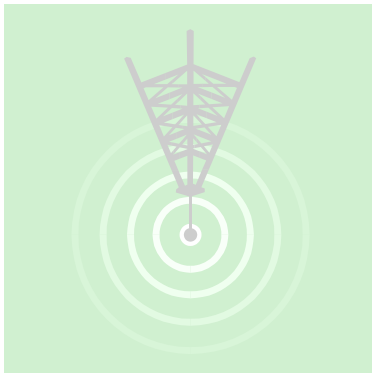
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South Bay Amateur Radio Club Repeater
224.38 MHz · PL - 192.8 Hz Offset -1.6 MHz
(See Calendar for Weekly Net Times)

NEWSLETTER SUBMISSION

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Address Correction Requested

A COMMUNITY SERVICE ORGANIZATION

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