ARRL The national association for AMATEUR RADIO

QST OFFICIAL JOURNAL

Section Manager

East Bay Section Newsletter
November, 2024

ARRL East Bay Family,

Pacificon this year was the best we've had since the COVID pandemic. More attendees (over 1,000 we estimate, maybe as many as 1,200); more vendors and more activities. We're still not back to our pre-pandemic levels, where both vendor halls were filled with vendors; but that gave us more room for non-profit organizations to let us know all about them. Several of the vendors were new to us this year and all we talked to were happy with the results. The hotel contributed its usual share of glitches, but none were show-stoppers.

The Friday Antenna Seminar was nearly full of attendee and had a number of new speakers. The Special Events Station was kept busy most of the weekend. Doug Hendricks, organizer of the QRP sessions, was enthusiastic about how well things went. The VE sessions tried out electronic testing for the first time. Of those that chose the electronic test, as opposed to paper, all passed. We had two transmitters hunts again this year, both well attended. The Banquet had great food and a pair of interesting speakers from Parachute Mobile, demonstrating and talking about the equipment and methods used to make ham radio contacts during a jump.

Dave Shaw, WB6WTM, a Scouting International Committee JOTA/JOTI Coordinator and member of the Pacificon Committee, reported that "We had about 90 Scouts at the event, 42 earned merit badges (electronics & radio). The vendors and organizations helped to enrich the Scouts experience by supporting our Scavenger hunt."
[JOTA = Jamboree On The Air. JOTI = Jamboree On The Internet}

And the League provided wonderful support again this year. In attendance were all three Vice Presidents of the Board; two Division Directors and at least one Vice-Director; six of the seven Section Managers in the Pacific Division; the CEO of the League; the Director of Development; the Director of Marketing & Innovation; QST's "Ask Dave" columnist and YouTuber, Dave Casler; and several other Division and Section office holders.

A great year and better to come next year. Mark your calendar now for next year's Pacificon; Friday, October 10 - Sunday, October 12, 2025. Note that this is a week earlier than our normal 3rd weekend of October.

Also see the items in the Section & Division News below about the ARRL's report and social media people at Pacificon this year.

Congratulations and thank you to the Northern Alameda County ARES Club, which became affiliated with the ARRL on November 19, 1984.

* Question:
What are three common oscillator circuits?
A. Taft, Pierce, and negative feedback
B. Pierce, Fenner, and Beane
C. Taft, Hartley, and Pierce
D. Colpitts, Hartley, and Pierce

(See the last page for the answer.)

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Section & Division News:

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* Pacific Division's New Website

The Pacific Division has a new website, being supported by the Division's new Assistant Director, Grant Bowman, K6CBK. Note that an Assistant Director is different from a Vice Director, with different responsibilities. An Assistant Director is a subject matter expert in a field where the Director needs support. Our Division's new website will be enlarged and enhanced as we proceed, but check out what we have already at (https://www.pacific.arrl.org/).

*ARRL Article on Pacificon

The League gave it's report on Pacificon, and it's a great one. See it at (https://www.arrl.org/news/2024-pacificon-inspires-next-generation-of-radio-amateurs).

* Ham Radio Crash Course at Pacificon

Josh Nass hosts one of the most popular ham-radio themed YouTube channels, called Ham Radio Crash Course, with some 366,000 subscribers. His channel also hosts the Ham Nation videocast, with Gordon West and others. Josh paid his first visit to Pacificon this year. He enjoyed his visit and made a very nice livestream, where he interviews a number of vendors, speakers and visitors. See it at (https://www.youtube.com/watch?v=FiPSoUl__pU) [YouTube, 01:19:28].

* Other Media at Pacificon

Other videocasts about this year's Pacificon including Pacificon Hamfest 2024 Parts 1 & 2 by KK6USY Ham Radio Adventures; ARRL photo album, on Facebook; ARRL Video about the T-Hunt, on Facebook. Get the links to these and others on the Pacificon website at (https://www.pacificon.org/resources/media). If you know of any Pacificon media not listed there, please let me know.

* Benicia Ham Class Report

The Benicia club held another of its excellent one-day ham classes on Saturday, October 5, 2024. They had 21 volunteers on hand to help a total of 42 applicants. 28 of those took the Technician course and 9 took the General course. The rest came it to test only. 24 Technician students passed the test, 3 of them with a perfect score; for a pass rate of 85.7%. 7 of the 9 General students passed, for a pass rate of 77.8%. All 5 walk-ins passed. The students came from 9 counties, some as far away as San Mateo and Santa Cruz Counties. Great efforts, Benicia. Thankx!
[And thankx to Bob, W6RBF, for the info.]

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ARRL News:

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* ARRL Foundation Scholarship Program

The ARRL Foundation Scholarship Program is for eligible amateur radio operators pursuing higher education. The ARRL Foundation manages more than 100 scholarships established by generous donors ranging from $500 to $25,000. The 2025 scholarship cycle has opened and will close at 12:00 pm (Eastern Standard Time) on January 6, 2025. All applicants must be an active, FCC-licensed amateur radio operator. Simply holding a license, without being active in some way, is unlikely to be successful in receiving a scholarship. All applicants must submit an application, along with additional documents that vary among the different scholarships. Requirements are detailed and must be followed exactly. All documents must be submitted with the application. Applications without accompanying required documents (if applicable) will not be considered. Get details on the program and the various scholarships, and the applications, at (https://www.arrl.org/scholarship-program).

* Handbook Edition 101 Now Available

The 101st edition of The ARRL Handbook is now available, representing the next generation of amateur radio! The Handbook has been your complete guide to wireless technology experimentation, practice, and development since 1926. It captures the state of radio science and technology in one authoritative work. Use its more than 1,200 pages of amateur radio know-how to delve into radio electronics, circuit design, digital modulation techniques, and equipment construction. It's available in a six-volume set and a softcover edition. Get it at (https://home.arrl.org/action/Store/Product-Details/productId/2018947704).

* Club Grant Program

At our October national Section Managers meeting, it was reported that the ARRL Club Grants program received 110 applications this round. They're currently being reviewed and they hope to announce the results around Thanksgiving. Note that this is a different program from the ARRL Foundation grants. Please understand that I have no knowledge about the status of any application, or even if an application from this Section has been submitted. I won't learn the results until, or shortly before, the results are announced to the clubs. For details on the Club Grant program, see (https://www.arrl.org/club-grant-program). For details on the Foundation Grant program see (https://www.arrl.org/amateur-radio-grants).

* ARRL November Sweepstakes

The CW weekend of the ARRL November Sweepstakes is this weekend, November 2-3. The phone Sweepstakes will be two weeks later, November 16-18. ARRL Sweepstakes is the "oldest domestic contest, beginning in 1930" with competition at the individual, multi-operator, and school club levels. Its purpose is "to support amateur self-training in radiocommunications, including improving amateur operating skills, conducting technical investigations, and intercommunicating with other amateurs." Get all the details and rules at (https://www.arrl.org/sweepstakes).

* What Does "W/VE Stations" Mean?

When reading rules for a specific contest, you'll often see language like "W/VE stations work DX stations; DX stations work everyone." The League has been asked what a W/VE station is on several occasions. W/VE stations are located in the United States and Canada, while DX stations are located throughout the rest of the world. Be careful though, in some contests Alaska, Hawaii, and the US territories are considered DX (such as in the ARRL International DX Contest), and in others they're considered W/VE (such as in ARRL November Sweepstakes).

* New SET Forms

New SET Forms A and B are now available on the League's website, along with instructions for uploading supporting documentation. Form A is the Emergency Coordinator Report; while Form B is the Net Manager Report. Access it all at (https://ares.arrl.org/aresset/).
[SET = Simulated Emergency Test.]

* IT Systems Disruption

Restoration of the ARRL contest website at (https://contests.arrl.org) is almost complete. The site has been repopulated with most of the 2023 and 2024 data and results articles that have been missing since last May's network disruption. Full results for the 2024 ARRL DX CW and SSB contests as well as the June VHF Contest will be published shortly.

The DXCC® System has been returned to service, and staff is again processing applications for credit toward DXCC awards. The queue includes nearly 3,000 award applications submitted via Logbook of The World® (LoTW®) accounts and mailed paper applications. We are processing the backlog as quickly as possible, and will provide additional progress updates. For now, the online DXCC application will remain offline. Any new award applications we receive will experience significant delays as we work through the backlog.

Most of the license testing processing systems are operational. However, the VE session counts webpage data entry programming that's been unavailable since May became operational again mid-October. However, there is a 5- to 6-month backlog of session and VE participation data to enter into the system. It will take some time for the session counts page to reflect the data correctly but will be updated as quickly as we are able.

New VE applications and renewals are again being processed, along with VE badges, certificates, and stickers. Unfortunately, the VE Newsletter is still unavailable.

The ARRL Information System (AIS), where data like club information is maintained, is partially recovered. Staff can now update field appointments, for example, but the link to the website is still offline. Also, staff cannot create new affiliated club files. Further, please check your club's information on the website. The recovery effort so far may have pulled in old data. If you find an error, send an email to (clubs@arrl.org).

The mass mailing system I use for corresponding with you is still down. (sigh…)

Also, remember that the database for all of our personal membership information, called Personify, was not accessed by the hackers. So, it is intact and safe. Your personal information was not compromised.

Keep up with the recovery's general status at (https://www.arrl.org/news/arrl-systems-service-disruption).
[VE = Volunteer Examiner]

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Government News

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* NASA and ARISS Accepting Applications for Contacting the Space Station

Through Nov 17, 2024, ARISS is accepting applications from formal and informal educational institutions and organizations that want to host events in summer or fall of 2025. There is no charge for these calls from space, although host locations may incur some equipment-related costs. See my source article at (https://www.nasa.gov/image-article/hello-earth-space-calling/). To learn more and apply, go to (https://www.ariss.org/). NASA's web page about ARISS is at (https://www.nasa.gov/mission/station/research-explorer/facility/?#id=337).

[ARISS = Amateur Radio on the International Space Station]

* FCC Chair Proposes Expanding 6 GHz Band Operations For Very Low Power Devices

FCC Chairwoman Jessica Rosenworcel proposed new rules to expand very low power device operations in additional spectrum in the 6 GHz band alongside other Wi-Fi-enabled devices. "These VLP devices would have no restriction on locations where they may operate and would have no requirement to operate under the control of an automatic frequency coordination system. To ensure the risk of interference remains insignificant, the devices would be required to employ a contention-based protocol, implement transmit power control, and be prohibited from operating as part of a fixed outdoor infrastructure." See the full press release at (https://www.fcc.gov/document/chairwoman-proposes-expanding-6-ghz-band-operations-vlp-devices) [Docx, PDF & Text, 1 page].

* National Spectrum Research and Development Plan Released

"The U.S. government has released the National Spectrum Research and Development Plan, a crucial step forward in maintaining America's global leadership in wireless spectrum innovation." The interagency working group that developed the plan included representatives from the National Science Foundation, Department of Homeland Security, Department of Defense, Department of Energy, Department of Transportation, Federal Communications Commission and the National Institute of Standards and Technology. It provides a coordinated national strategy to address the increasing demand for spectrum access and emphasizes the need for innovation in spectrum management and sharing technologies. The plan is available at (https://www.whitehouse.gov/wp-content/uploads/2024/10/National-Spectrum-RD-Plan-2024.pdf) [PDF, 50 pages]. An article about the plan is at (https://new.nsf.gov/news/us-releases-national-spectrum-research-development-plan).

* Voyager 1 Switches Itself to a Transmitter That Hasn't Been Used in 43 Years

Voyager 1 is now some 23 light-hours away from Earth. So sending a command to it and getting its response takes almost 2 days. Just the fact that it's beyond the Solar System in interstellar space and still functioning at all after some 47 years is amazing. But it not only is working, it recently helped NASA's engineers with a communications problem it was having, without direct instructions. It appears that, when the flight team sent a command to turn on one of the spacecraft's heaters, the spacecraft's fault protection system lowered the data rate of the main X-band transmitter, then shut it down completely. After some investigation, the team found that the spacecraft had automatically turned on the backup S-band transmitter, which uses less power but sends a much weaker signal. The team is now troubleshooting to find out what happened and get the craft back to normal operations. Get the details at (https://blogs.nasa.gov/voyager/). You can also track how far away both Voyager 1 and Voyager 2 are at (https://science.nasa.gov/mission/voyager/where-are-voyager-1-and-voyager-2-now/).

[Thankx to Devin, N8AYO, for the tip.]

* NIST Explains Atomic Clocks

Today's society depends on exceptionally accurate and precise time measurement; from GPS to cell phones, medical devices and many more. The NIST has a new section on its website that explains all about atomic clocks, which have become the standard against which all other time pieces are measured. The link below leads to a cover page that provides links to six articles on atomic clocks, including how they work, how they help us, their history, how they advance science and the latest news. See them all at (https://www.nist.gov/atomic-clocks).

[NIST = National Institute of Science and Technology]

* AI For First Responders

Much of what hams do is in support of first responders and other emergency response organizations. The federal Department of Homeland Security is working to develop AI for first responders because "these emerging technologies offer advanced capabilities to process information faster and enhance decision making". For example, these efforts have already: provided valuable high-resolution wildfire information, where weather and others factors can change quickly;

“resulted in the identification and rescue of 311 previously unknown victims of sexual exploitation”; and helped counter the flow of fentanyl. Numerous other ways AI can help are in the article. The article also discusses potential ricks of AI. See the article at (https://www.dhs.gov/science-and-technology/news/2024/10/31/feature-article-ai-means-better-faster-and-more-first-responders).
[AI = Artificial Intelligence]

* What’s In A Name?
The NIST has put out two more articles in its excellent blog series, “What’s In A Name, The Stories Behind the Names of Units of Measurement”. One is about Dr. Wilhelm Weber, for which the unit of magnetic flux, the weber, is named in his honor. Magnetic flux measures the total magnetic field that passes through a surface. The other is on Nikola Tesla. The “tesla” is the unit for magnetic flux density. Think of magnetic flux density as a measure of magnetic strength. Weber’s article is at (https://www.nist.gov/blogs/taking-measure/whats-name-magnetic-weber); while Tesla’s is at (https://www.nist.gov/blogs/taking-measure/whats-name-tesla).

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Other News:
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* ShakeOut Day Results
The annual International ShakeOut Day was Thursday, October 17 this year. Some 58.3 million people and organizations participated worldwide, 19.7 million of them from the U.S. We had almost 10.7 million in California, with 641,125 from the East Bay Section. Winlink Administrator Steve Waterman reports that 1,489 DYFI reports were submitted via Winlink. An outstanding turnout.
[DYFI = Did You Feel It?]

* Adventure Radio Protocol
You may have heard of something called the Wilderness Protocol; a method for a ham in a remote location without access to a repeater or cell phone signal to potentially contact help if there’s an emergency. It’s briefly described in the ARRL’s “ARES Field Resources Manual” (page 87), and more fully discussed in the February, 1994 QST (https://webpubs.arrl.org/pubs_archive/90137), with a follow-up in the August 1995 QST (https://webpubs.arrl.org/pubs_archive/91702). [Note: you must be logged in to the ARRL website to access these articles.]
A few weeks ago, I attended a presentation at a club meeting by George Zafiropoulos, KJ6VU, about his proposal to expand on the Wilderness Protocol with what he calls the Adventure Radio Protocol. As he describes it, “The Adventure Radio Protocol provides a common radio frequency and signaling standard to make it easier for radio operators in the field to find and communicate with each other.” This is not just for emergencies. It can also be used for pretty much any purpose that takes you away from normal communications; such as POTA/SOTA/xOTA and automated messaging from local repeaters. An interesting concept. Read about it on his webpage at (https://www.sierraradio.net/adventure-radio.html).
[POTA = Parks on the Air. SOTA = Summits on the Air. xOTA = pretty much anything on the Air.]

* Ham Bootcamp Online
The Nashua Area Radio Society in New Hampshire will be holding an online Ham Bootcamp on Saturday, November 9, 2024, from 10:00 am to 6:00 pm ET (7:00 AM-3:00 PM Pacific). The Ham Bootcamp program includes a series of demonstrations and tutorials designed to help new, inactive, and prospective hams gain the skills and information needed to get on the air. It’s open to any interested ham or prospective ham in the U.S. and Canada and there’s no charge to attend. Ham Bootcamp activities are provided online via a series of sessions geared towards Technician class licensees, prospective hams, General class licensees and higher. Bootcamp participants will find all of the material interesting and fun no matter what their focus or license level. The online Bootcamp program is available to all licensed and prospective hams. Get full information about the Bootcamp at (https://www.n1fd.org/ham-bootcamp/) and register for the next session at (https://www.n1fd.org/register-ham-bootcamp/). For questions or additional information, contact (bootcamp@n1fd.org).
[Thankx to Tom, WB8LCD, for the information.]

* Young Ham’s Hobby Helps Build His Career
The IEEE Spectrum magazine’s September edition has a story about a New Jersey college student that is using his long interest in amateur radio as one tool to develop his education and career path. He’s an active participant in HamSCI and competed in the Micro Mouse competition, as just a few examples of what he’s doing. See the full story at

(https://spectrum.ieee.org/ham-radio-inspired-scranton-student).
[IEEE = Institute of Electrical and Electronics Engineers. HamSCI = Ham Radio Science Citizen Investigation.]

* WiLo for the Best of Two Worlds
Another interesting article in the IEEE Spectrum magazine talks about how researchers are combining two existing technologies to get the best from both. "Researchers have developed a hybrid technology that would combine Wi-Fi with the Long Range (LoRa) networking protocol, yielding a new long-distance wireless concept called WiLo." The system uses existing off-the-shelf equipment, which significantly reduces costs and complications. The "researchers developed an algorithm to manipulate the frequency of Wi-Fi's data transmission signals to match the signals that the LoRa device uses to communicate with other devices." See the full story at (https://spectrum.ieee.org/wi-fi-lora-hybrid).
[IEEE = Institute of Electrical and Electronics Engineers]

* Earth's Ambipolar Electric Field
A rocket launched from Norway in 2022 led to the solution to a mystery that began in the 1960s, according to a study recently published in the journal Nature. A phenomenon called the "polar wind" was found, which consists of charged particles being pushed into space at supersonic speeds from the ionosphere. It extends the ionosphere's height by 271 percent and acts as a protective shield that blocks harmful solar radiation. See the full story I read at (https://globalpost.com/2024/10/15/scripture-and-strictures/). Scroll down to the story "The Big Mystery of Little Particles". The study itself is at (https://www.nature.com/articles/s41586-024-07480-3.epdf).

***** Youth on the Air Camp for the Americas
The fifth Youth on the Air Camp for the Americas has been scheduled for June 15-20, 2025. The camp will be held in Thornton/Denver, Colorado, and welcomes young amateur radio operators from North, Central, and South America. The camper application period will open online December 1, 2024, at (youthontheair.org). Eligible youth are licensed amateur radio operators between ages 15 and 25. Up to 50 campers will be accepted and priority will be given to first-time attendees and to youth residing outside of the USA. Past campers may apply to be considered to serve as leaders during the camp. For details about the camp and/or to sign up for updates by email, visit the camp web page at (youthontheair.org/denver2025). Dates and locations for the inaugural 2025 subregional camp(s) and the inaugural 2025 YOTA Junior USA camp (for under age 15) will be announced as soon as they are available. For additional information, please contact Camp Director Neil Rapp, WB9VPG, at director@youthontheair.org.
[Thankx to Tom, WB8LCD, for the information.]

* Royal Netherlands Air Force Retiring the F-16
Throughout November, members of Radio Club Limburg (RCLB) in the North Limburg region of the Netherlands, will activate special event station PF16F. The event marks the retirement from the Royal Netherlands Air Force of the F-16, or Fighting Falcon, aircraft after 45 years of service, from 1979 to 2024. RCLB members hope to contact amateur radio operators around the world in November. QSL information is available from QSL Manager PD8RW. For additional information, visit the club's website (https://radioclublimburg.nl/pf16f/).
[Thankx to Tom, WB8LCD, for the information.]

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Hamfests And Special Events:
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* 11/16-18/2024
W6SFM Bug Roundup 0000Z-0000Z, W6SFM, Fair Oaks, CA. Samuel F. Morse Amateur Radio Club. 3.533 7.033 14.033 28.033. QSL. John Geyer, 4901 Minnesota Avenue, Fair Oaks, CA 95628. This is an operating event. (https://w6sfm.org/bug-roundup).

01/25-27/2025
Discovery of Gold in California. 1700Z-0100Z, AG6AU. Coloma, CA. El Dorado County ARC. 7.248 14.248 21.348 28.348. QSL. El Dorado County ARC, PO Box 451, Placerville, CA 95667. (http://edcarc.net/)

05/30/2025- 06/01/2025
SEA-PAC, ARRL Northwestern Division Convention. Location: Seaside, OR Sponsor: Oregon Tualatin Valley ARC and Clark County ARC. Website: (http://www.seapac.org)

Search for all hamfests at (https://www.arrl.org/hamfests-and-conventions-calendar)
Search for all Special Event Stations at (https://www.arrl.org/special-event-stations)
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Significant Events in Telecomm History – November

** Note: Send me the date and location your club was founded, so I can add it to this list. **

11/02/1920	Radio station KDKA in Pittsburgh, PA broadcast the Harding-Cox presidential election results, becoming the first commercially-licensed radio broadcast station. But college station 2ADD (now WRUC) beat it on the air by almost 3 weeks.
11/03/1906	The first international standards for ship-to-shore communication, including the distress call which came to be called "SOS", was signed into international law at the first International Radiotelegraph Convention in Berlin.
11/5/1879	James Clerk Maxwell died in Cambridge, England, United Kingdom at age 48.
11/07/1967	President Lyndon B. Johnson signed the Public Broadcasting Act, creating the Corporation for Public Broadcasting.
11/08/1895	Wilhelm Conrad Röntgen, a German mechanical engineer and physicist, produced and detected electromagnetic radiation in a wavelength range known as X-rays or Röntgen rays.
11/08/1988	The first amateur radio contact aboard the Russian space station Mir occurred, between Leonid Labutin, UA3CR and Musa Manarov, U2MIR.
11/09/1914	Hedy Lamarr, major movie star and co-inventor of the spread spectrum frequency hopping technology, was born in Vienna, Austria-Hungary.
11/18/1963	AT&T commenced the first subscriber Touch-Tone service in the towns of Carnegie and Greensburg, Pennsylvania, using push-button telephones that replaced rotary dial instruments.
11/18/1997	The Institute of Electrical and Electronics Engineers (IEEE) standard "IEEE 802.11-1997; IEEE Standard for Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications" was published. The 802.11 series of standards came to be popularly known as Wi-Fi.
11/19/1984	The Northern Alameda County ARES club became affiliated with the ARRL.
11/20/1919	The Radio Corporation of America (RCA) was formed as a radio communications subsidiary of General Electric, reorganized from the Marconi Wireless Telegraph Company of America.
11/22/1948	Federal frequency & time signal radio station WWVH was launched in Kihei on the island of Maui, then the territory of Hawaii.
11/23/1993	The FCC specified a stereo standard for AM radio.
11/24/1890	Edouard Branly discovered radioconduction, observing that an electromagnetic wave changes the ability of metal filings to conduct electricity, leading to the first practical wireless signal receivers.
11/28/1660	The first meeting of the "Invisible College" followed a lecture at Gresham College by Christopher Wren. Upon receiving royal approval, from 1663 the group became known as "The Royal Society of London for Improving Natural Knowledge"; the world's oldest academy of science.
11/28/1983	The first amateur radio to go into space, a handheld, was carried aboard the Space Shuttle Columbia by astronaut Owen Garriott, W5LFL.

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New Hams:

The new Ham and Upgrade reports are currently not available, due to the IT systems disruption.

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New Upgrades:

The new Ham and Upgrade reports are currently not available, due to the IT systems disruption.

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Question & Answer:
What are three common oscillator circuits?
D. Colpitts, Hartley, and Pierce

[Extra Class question pool (2024-2028) no. E7H01 (https://www.ncvec.org/index.php/2024-2028-extra-class-question-pool-release)]

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If you'd like a better-looking PDF version of this newsletter, or want to refer to previous editions, they're all available on the East Bay Section website at (https://arrleb.org/index.php/files/get_dir/Newsletter).

Until next time, remember that the East Bay Section team is here to serve you, the hams of the East Bay. If you have a question or a problem concerning ham radio, don't hesitate to contact us.

Mike Patterson, N6JGA
ARRL East Bay Section Manager

Email: mapa@ieee.org
Website: https://www.arrleb.org
East Bay Section Discord: https://discord.gg/DNAAfC7hax
ARRL HQ Help Desk: 888-277-5289 or hq@arrl.org
Index of Contacts at ARRL HQ: http://www.arrl.org/contact-arrl
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