ARRL The national association for AMATEUR RADIO

QST OFFICIAL JOURNAL

Section Manager

East Bay Section Newsletter
December, 2024

ARRL East Bay Family,

I hope your Thanksgiving was a good one. A day with family and/or friends along with good food is always a great way to start the holiday season. The sunny day was a pleasant respite from the recent rain.

There's lots of news this month, in every section of the newsletter. Of particular interest is the upcoming Division Membership meeting on January 11; some proposed changes to the ARRL bylaws; some notices released by the FCC, and more questions removed from the license testing question pools. See all that and a lot more below.

Congratulations and thank you to the USS Red Oak Victory Amateur Radio Club and the Contra Costa Communications Club, which became affiliated with the ARRL on December 04, 1999 and December 05, 1987, respectively.

Also, congratulations to the Quarter Century Wireless Association (QCWA), which was founded in New York City on December 05, 1947 (77 years!).

May your Christmas be Merry and your New Year be Happy. 2025, ready or not, here we come.

* Question:
Which of the following types of propagation is most commonly associated with occasional strong signals on the 10, 6, and 2 meter bands from beyond the radio horizon?
A. Backscatter
B. Sporadic E
C. D region absorption
D. Gray-line propagation

(See the last page for the answer.)

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Section & Division News:

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* Pacific Division Member Meeting

Pacific Division Director Tony Marcin, W7XM, will host a Division-wide member meeting next month on Saturday, January 11, 2025 at 10:00 AM. It will be held on Zoom, with the link being posted soon on the Division website and in an email sent out to all League members who have set their profiles to receive such messages. So mark your calendars now and don't miss it. The Division website is at (https://www.pacific.arrl.org/).

* Benicia Ham Class

The Benicia ARC will host another one of its one-day ham classes on Saturday, February 1, 2025. It will be from 8:30 am to 5:00 pm with a one-hour lunch break, at the Benicia Senior Center, 1201 East 2nd Street. The class offers training for both the Technician and General Class licenses. The fee is $35.00, which includes the exam fee. For details and to register, see (https://beniciaarc.com/hamclass/).

* MDARC Technician License Class

The Mt. Diablo club will hold its next Technician Class 8-session course each Tuesday evening, January 7-February 25, 2025 at 7:00 PM, both in person and on Zoom. There will be a test session the following Tuesday, March 4, and two optional (but highly recommended) Get-On-The-Air sessions on the two Tuesdays following the test session. For details

and to register, go to (https://www.mdarc.org/education-and-testing/class-details). Scroll down to the section "January Course" and click the course title to register. Be sure to read the rest of the above web page to get needed information, such as the required manual. Send any questions to (info@mdarc.org).

* IARU Region 3 Conference

If you're familiar with the IARU worldwide Regions, which match the ITU regions, you may have noticed that our Pacific Division is located in both Region 2 and Region 3. Region 2 has the Americas while Region 3 covers the southern half of Asia and of our Pacific Islands. That means that we (and therefore the ARRL) have an interest in the IARU Region 3 Conference, which was held last month in Bangkok, Thailand. The League is also the overall IARU International Secretariat. We were represented at the conference by ARRL President Rick Roderick, K5UR, and International Affairs Vice President Rod Stafford, W6ROD. Most of this meeting concerned routine matters. The major item, though, was revising the way the region leadership is chosen. The next region meeting will be in 2027, located in Bali, Indonesia.
For information on the IARU, see (https://www.arrl.org/IARU) and (https://www.iaru.org/).
[IARU = International Amateur Radio Union. ITU = International Telecommunications Union.]

* National Pearl Harbor Commemoration

A commemoration of the 83rd anniversary of the attack on Peral Harbor will be held on the morning of December 7th at the Pearl Harbor National Memorial in Honolulu. The event will be live streamed. For the live stream link and other information, go to (https://www.pearlharborevents.com/event-details-registration/national-pearl-harbor-commemoration-ceremony-2). Also, in honor of this event, the FCC granted the ARRL's request for a temporary waiver of Part 97 rules, to allow hams to contact government stations. See the item in the Government News section below. The League's request was on behalf of the Battleship Iowa Amateur Radio Association in Los Angeles to allow amateur-military cross-band capabilities to communicate with the Battleship Iowa using the ship's original callsign NEPM.

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ARRL News:

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* Proposed Changes to ARRL By-Laws

In my February newsletter, I reported on the annual meeting of the Board of Directors, held the month before. One of the items was a discussion of proposed changes to Bylaw nos. 42 and 46. Bylaw 42 establishes the Ethics and Elections Committee and describes its duties. Bylaw 46 is the Board's Conflict of Interest Policy. A committee was established to develop the proposed changes, and it has now completed its work. All members of the ARRL should have received an email from the chair of the committee the week before Thanksgiving, which briefly outlines what the committee did and why. It provides a link from which you may review a summary of the committee's work, summaries of the proposed changes, and links for access to the full report of the committee along with the text of the proposed changes. The link to all this is (https://www.arrl.org/by-laws-update). The existing Bylaws are available at (https://www.arrl.org/files/file/About%20ARRL/ByLaws%202024%20Jan%2001_20_24.pdf) [PDF, 17 pages.]

I encourage all League members to review these documents to help develop your own perspective on the issues. Please understand that, as a Section Manager, I cannot respond to any comments or questions you may have. As these are League policy matters, they must be handled by the Board. So please send any questions or comments about this to the Pacific Division Director, Anthony Marcin, W7XM, at (w7xm@arrl.org).

* ARRL Annual Report

The ARRL Annual Report for the prior year (2023 in this case) is normally released around the time of the July Board meeting. It was late this year, likely due to the ransomware attack in May. But it's out now, so you can take a look. A few tidbits: There are about 57,000 volunteers in the ARRL. If you're one of them, thank you. Our ARES volunteers contributed over 635,000 hours, valued at over $20 million. Over 134 million contacts were uploaded to Logbook of the World, with more than 835,000 unique call signs. More than 426,000 QSOs were logged by W1AW/Portable during this Year of the Volunteer. The ARRL Learning Center experienced a 33% increase in users. The League finally(!!) succeeded in getting the FCC to remove the symbol rate restrictions. ARRL VE's administered over 8,300 exams and filed over 29,000 license application forms. Almost 25,000 new ham licenses were issued. The League ended 2023 with 149,501 members, whose dues produce about 45% of the total operational revenue.

I'll be the first to confess that there's a lot in the financial statement that I don't understand. But if I do understand this part, the League had total revenues of a bit over $15.1 million and total expenditures of about $16.5 million; for a net loss of a little under $1.4 million for the calendar year 2023. However, unrealized gains in the investment portfolio of about $3.2 million helped offset that.

The full Annual Report is at (https://www.arrl.org/annual-reports) [PDF, 54 pages].

* Field Day Results
The 2024 ARRL Field Day results are now available in the December issue of QST and on the ARRL Field Day website. Class A, B, and C scores are included in the 2024 QST results article. The scores for Class D, E and F station and club aggregate scores are listed in the 2024 line scores on the web site, as well in the digital edition of QST. The Field Day section of the website is at (https://field-day.arrl.org/). Get an advance copy of the December QST article at (https://contests.arrl.org/ContestResults/2024/Field-Day-2024-FinalQSTResults.pdf) [PDF, 14 pages].

* Good Reading in the League Magazines
The ARRL is closing out the year with some good articles in its four magazines. The December issue of QST has articles on Artificial Ground, Homebrewing software with Python (a popular programming language), and working the world with "100 W and a Dipole".

On The Air magazine has several good articles, among them is a story about Youth on the Air month (December); a new live video podcast in the League's Learning Center, aimed at new and intermediate-level hams; details on how to build a small-space dipole antenna for 10 meters; and a tutorial on ICS, the Incident Command System, something we hams need to know for any kind of emergency response support.

QEX has articles on "Using Amateur Radio Data to Improve Intense Sporadic-E Observations; and modeling insulated wire in antenna modeling programs, for use in designing antennas. Did you know that having insulation on the wire used for your antenna will change its characteristics?

And NCJ, the National Contest Journal, talks about how to estimate the number of hams in a particular contest, while the contest in in progress; tips on improving your contesting skills; and some unusual tools for working on your gear.

Remember, you have access to all of these magazines as part of your membership. Get them with the ARRL magazine app on your favorite mobile device or at (https://www.arrl.org/arrl-magazines.

* ARES Group Registration Page Is Back Online
The ARES group registration page is back online after the IT disruption and is ready to go. If you're in an ARES club that isn't already registered, go to (https://www.arrl.org/ares-group-registration) to register your club, so others can find your group. For information on ARES, go to (https://www.arrl.org/ares).
[ARES = Amateur Radio Emergency Service.]

* Improving Your Contest Scores
Many contest sponsors offer access to log check reports (LCRs), also known as UBNs. Viewing your LCR from previous events can help you improve your contest scores by seeing where most of your errors are made. The most common errors are busted call signs or inaccurate exchange information. LCRs for ARRL sponsored events, for example, are available at (https://contests.arrl.org/logcheckreports.php). The reports for ARRL events well be sent to the email address provided upon log submission.
[UBN = Unique, Busted, Not In Log.]

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Government News

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* The Affordable Connectivity Program Has Ended, but Some ISPs Aren't Telling You
The FCC issued a Consumer Alert to advise consumers that may be shopping for new devices or internet services that "some internet service providers have not updated their websites and other marketing materials to reflect that the Affordable Connectivity Program (ACP) and its monthly discount on broadband services ended on June 1, 2024. Some provider websites even continue to collect personal information from consumers seeking enrollment in ACP". To get the details, the reason it ended, possible alternatives and how to file a complaint about a website, see the Alert at (https://www.fcc.gov/document/consumer-alert-some-isps-advertising-affordable-connectivity-program) [PDF or Txt, 2 pages].

* If You Do the Crime, Don't Use Your Radio
On November 4th, the FCC released an Enforcement Advisory to remind us that "Amateur and Personal Radio Services may not be used to commit or facilitate crimes." Doing so constitutes yet another crime. No word on why they chose this particular time to remind us. Maybe it's an annual thing. See the Advisory at (https://www.fcc.gov/document/fcc-reminder-amateur-personal-radio-users) [Docx, PDF & Text, 2 pages].

* Solar Maximum is Here
NASA, the National Oceanic and Atmospheric Administration, and the international Solar Cycle Prediction Panel announced that the sun has reached its solar maximum period, which could continue into next year. You can read more on the NASA website at (https://science.nasa.gov/science-research/heliophysics/nasa-noaa-sun-reaches-maximum-phase-in-11-year-solar-cycle/).

* FCC Grants ARRL Waiver for Pearl Harbor Remembrance Day Event
The FCC granted a request by the ARRL for a short-term waiver of rules limiting ham radio communications with government stations. "Section 97.111(a)(5) of the rule grants specific authority to communicate with Federal stations for such communications for one armed forces special event day, the Armed Forces Day Communications Test. No other commemoration day is authorized in this section." The waiver allows hams to use specific frequencies for the period of "December 7 and 8, 2024, for the purposes of a short term event commemorating the Pearl Harbor attack". See the full order at (https://www.fcc.gov/document/wtb-grants-arrl-waiver-pearl-harbor-remembrance-day-event-0) [[Docx, PDF & Text, 2 pages].

* FCC Adopts 'C-V2X' Auto Safety Spectrum Rules
The has adopted final rules for cellular-vehicle-to-everything (C-V2X) technology in the 5.9 GHz band. The new rules provide a technology for sending and receiving messages over existing 5G cellular networks with alerts about traffic issues, weather conditions, road hazards or speeding cars. The spectrum in question is also allocated for amateur radio use. A press release is at (https://docs.fcc.gov/public/attachments/DOC-407683A1.pdf) [PDF, 1 page]. The Report and Order is at (https://www.fcc.gov/document/use-5850-5925-ghz-band) [Docx, PDF & Text, 58 pages].

* Hearing When a Lithium Battery Is About to Catch Fire
Researchers at the NIST have developed a way to use sound to detect when lithium-ion batteries are about to catch fire. I expect you've seen stories of what can happen when a lithium battery burns. I included one items in my September newsletter. They're very useful, but can be extremely dangerous. "A battery can emit a jet of flame up to 1,100 C (2,012 F), almost as hot as a blowtorch, and it reaches that temperature in about a second." The NIST discovered that a lithium battery makes a sound similar to that of popping open a bottle of soda shortly before bursting into flame. Using AI, they developed a system that can give an alarm as much at two minutes before the battery fails. See the full story at (https://www.nist.gov/news-events/news/2024/11/ai-can-hear-when-lithium-battery-about-catch-fire).
[NIST = National Institute of Standards and Technology. AI = Artificial Intelligence.]

* Skywarn Recognition Day
The 25th annual Skywarn Recognition Day is Saturday, December 7, running from 0000 to 2400 UTC (Dec. 6 @ 4:00 PM to Dec 7 @ 4:00 PM Pacific time). The day was developed by the NWS and the ARRL to celebrate the contributions that Skywarn™ volunteers make to the NWS mission, the protection of life and property. W1AW will be on the air that day. If you're a Skywarn weather spotter, go to (https://www.weather.gov/crh/skywarnrecognition) to complete the registration form and be recognized. If you're not an NWS spotter, but are interested in becoming one, go to (https://www.weather.gov/mtr/spotter) and read the material there. Also, the section near the bottom of this page called "Training Brochures" includes a link to a page for online training to become a spotter.
[NWS = National Weather Service.]

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Other News:

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* Hamvention
Tickets to Hamvention in Xenia, Ohio are now available on their website. Hamvention is May 16-18, 2025. Early registration is only $26.00. Get your tickets and other details at (https://hamvention.org/).

* Questions Removed From the Question Pools Again
I reported in the January and April editions of this newsletter on questions being removed for our license testing questions pools. The NCVEC announced that two more questions are being removed. Both Extra pool question E2A13 and General pool question G8C01 have been deleted from use on examinations as the two questions each have more than one correct answer. If you're involved in license testing, please be sure to remove both questions from your examinations right away. See the ARRL's full notice at (https://www.arrl.org/news/view/ncvec-question-pool-committee-removes-two-pool-questions-from-use). Updated question pool files, including the errata and new information, are available at

(https://ncvec.org/). Click on the appropriate menu item on the left side of the page for each question pool.
[NCVEC = National Conference of Volunteer Examiner Coordinators.]

* YOTA Month is Here
December is Youth on the Air month. The goal is to show the amateur radio hobby to youth and to encourage youngsters to be active on the ham radio waves. Give a demonstration in a school or local club, gather together with your friends, grab a pizza and make some QSOs or enjoy a great pile-up. Make a QSO with the youngsters, they are happy to get some attention and exchange information. Licensed and unlicensed youth will be making QSOs, be aware this could be their first radio contact ever and give them a chance to experience a possible new hobby. Get details at (https://events.ham-yota.com/). And listen to the latest ARRL On The Air podcast at (https://blubrry.com/arrlontheair/138480494/december-yota-month-is-coming/).

* Mark Your Calendar for SEA-PAC
SEA-PAC 2025 has been scheduled. It will be May 30-June 1, 2025 at the Seaside Convention Center, 415 First Ave. Seaside, Oregon. Registration is not yet open, so check their website occasionally at (https://www.seapac.org/).

* QCWA's W2MM Special Event Station
The Quarter Century Wireless Association (QCWA) is sponsoring the W2MM Special Event Station annual event, which runs for 7 days beginning the first weekend of December. QCWA members can activate that call sign by scheduling a time slot with the Activities Manager at (activitiesmanager@qcwa.org). All hams that work W2MM will be able to download a commemorative certificate. See (https://qcwa.org/w2mm-special-event.htm) for details.

* The Eye of Diablo to be Relit on Pearl Harbor Day
Mount Diablo's summit beacon, the Eye of Diablo, will be relit this Saturday, December 7 by a survivor of Pearl Harbor during an annual ceremony honoring the attack that brought the U.S. into World War II. The public is invited to the ceremony, during which a Pearl Harbor survivor is expected to speak about his experiences. An exhibit of the USS Arizona will be on display at 3:00 PM, with the ceremony beginning at 3:45 PM. The Beacon lighting will be at 5:00 PM. Location is the Oak Room, California State University East Bay, Concord Campus, 4700 Ygnacio Valley Road, Concord. Get details and some history of the beacon at (https://savemountdiablo.org/experience/events-outings/beacon-lighting/).

* Let's Talk to Santa (Oh, Your Kids Can, Too)
Both Santa and Mrs. Claus will be on the air at various times this season from now through December 24 on HF, VHF and repeater networks such at Allstar, DMR and Echolink. Get the details at (https://www.arrl.org/news/how-to-let-kids-talk-with-santa-over-ham-radio-this-holiday-season).

* Build Your Own Radio Telescope
As the article I read says, "With modern electronics, it is relatively easy to build your own radio telescope." The one described at the below link includes a 1-meter grid satellite dish and a Raspberry Pi, along with some other electronics. It's tuned to a frequency of 1420.405 MHz. That's the frequency emitted by neutral hydrogen, which comprises the bulk of matter in the Universe. So, "wherever there is matter, so too is the hydrogen line." See the article I read at (https://www.universetoday.com/169185/you-can-build-a-home-radio-telescope-to-detect-clouds-of-hydrogen-in-the-milky-way/). It links to the Cornell University site, where the paper is published. The paper itself is at (https://arxiv.org/pdf/2411.00057) [PDF, 27 pages; including numerous photos & diagrams]. Other formats are available at the Cornell site.
[Thank to Howard, SWL, for the tip.]

* Mapping the Ionosphere with Your Phone
Popular Science magazine's website has an article on how Google is using the "noisiness" of millions of Android phone signals to map the ionosphere in greater detail than can be done with dedicated monitoring stations. According to the story, the constantly changing ionosphere messes with the GPS signals, which can cause our phone apps to drift off course. By combining signal readings from a very large number of phones, Google is able to produce more accurate maps of the ionosphere, which can then be used to correct for the anomalies. This is especially helpful in poorer regions of the world, where there are fewer monitoring stations. Get the full story at (https://www.popsci.com/technology/google-gps-map/).

* Another Good Use of Your Wireless Phone Signal – Predicting Flash Floods
It's amazing to me the amount of information humans have learned to squeeze out of apparently simple signals. A

pinprick of light from a distant star can tell us so much about the universe, for example. And now, we have stories like the one above and this one, where we're gathering data from wireless phone signals that have nothing to do with the content of the message; and yet they're solving major problems. This is a story from the IEEE Spectrum magazine about an expert in signal processing and cellular communication that came up with the idea of using existing wireless communication signals to collect weather data. Her team "developed algorithms that process and analyze data collected by communication networks to monitor rainfall. They measure the difference in amplitude of the signals transmitted and received by the systems to extract data needed to predict flash floods." For how she got the idea, why it's so important and how she did it, see the full story at (https://spectrum.ieee.org/wireless-signals-collect-weather-data).
[IEEE = Institute of Electrical & Electronics Engineers]

* Father-Daughter Duo Decode an Extraterrestrial Message – Sent from Mars
Last year, the European Space Agency, in a joint exercise with SETI, sent a signal back to Earth from a satellite orbiting Mars. The raw signal included a message "to run the scenario of a citizen science response in the event of a real interstellar communication". "The challenge was first to extract the message from the raw data of the radio signal, and secondly to decode it." It took 5,000 people on Discord a full 10 days just to extract the signal from the raw data, which included the signals from many other spacecraft as an additional challenge. The second task took longer, but dad and daughter finally did it. See the full story at https://www.goodnewsnetwork.org/father-daughter-duo-won-the-race-to-decode-an-extraterrestrial-message-sent-from-mars-to-test-humanity).
[SETI = Search for Extraterrestrial Intelligence.]

* A Ham's Guide to RFI, Ferrites, Baluns, and Audio Interfacing
About five-six years ago, Jim Brown K9YC, wrote a paper with the above title and posted it on his website. I haven't read the whole thing yet, but it looks very interesting and educational, so far. If you'd like to learn more about this topic, download a copy at (http://k9yc.com/RFI-Ham.pdf) [PDF, 59 pages].
[Thankx to Bruce, MK6CWV, for the tip.]

* The First Virtual Meeting Was in – 1916?
On the evening of May 16, 1916, John J. Carty in New York City called to order a meeting of the American Institute of Electrical Engineers (AIEE), a predecessor to the IEEE. Through the new miracle of the telephone, the Institute connected meeting rooms across the nation, including San Francisco, allowing some 5,100 engineers to participate in two-way discussions. Note that the first transcontinental phone call had been achieved only a year earlier. The meeting even included "breakout sessions", a musical interlude, and messages from U.S. President Woodrow Wilson; Alexander Graham Bell; Theodore Vail, first president of AT&T; Thomas Watson, Bell's assistant; and others. Apparently, no one attempted to repeat this extraordinary meeting until late in the century, when conference call systems were invented and offered to large corporations. See the full story on IEEE Spectrum's website at (https://spectrum.ieee.org/virtual-meeting).
[IEEE = Institute of Electrical & Electronics Engineers]

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Hamfests And Special Events:
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* 01/19-25/2025
Quartzfest. Quartzsite, AZ. Website: http://quartzfest.org.

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/)

* 04/11-13/2025
International DX Convention, 76th Annual. Visalia, CA. Sponsored by Southern California DX Club. Website: http://www.dxconvention.org.

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)

10/10-12/2025
Pacificon 2025 Location: San Ramon, CA. Sponsor: Mount Diablo Amateur Radio Club. Website: (http://www.pacificon.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 – December

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

12/01/1966	Federal radio station WWV in Greenbelt, Maryland went off the air at 0000 UTC and the new station near Fort Collins, Colorado simultaneously went on the air.
12/01/1983	Astronaut Owen Garriott, W5LFL, aboard the Space Shuttle Columbia, made the first ham radio contact from a human in space to someone on Earth. The contact was with Lance Collister, WA1JXN, in Frenchtown, Montana. Lance is now W7GJ.
12/03/1992	The first telephone text message was transmitted by Engineer Neil Papworth when he typed "Merry Christmas" on a computer and sent the first SMS message to the cellphone of Vodafone director Richard Jarvis.
12/04/1850	William Sturgeon, inventor of the electromagnet, died in Prestwich, Lancashire, England at age 67.
12/04/1999	The USS Red Oak Victory Amateur Radio Club became affiliated with the ARRL.
12/05/1947	The Quarter Century Wireless Association (QCWA) was founded in New York City.
12/05/1987	The Contra Costa Communications Club became affiliated with the ARRL.
12/06/1923	President Calvin Coolidge gave an address to Congress that was the first presidential speech to be broadcast over the radio.
12/07/1941	Pearl Harbor, Hawaii and other locations were attacked, bringing the U.S. into World War II. Radio station KTU in Honolulu broadcast several hours of live updates during the surprise attack.
12/08/1864	James Clerk Maxwell proposed a theory of electromagnetic radiation in a lecture to the Royal Society of London. He stated that "light and magnetism are affections of the same substance".
12/09/1921	Radio station KWQ went on the air in San Jose. It became KCBS in 1949.
12/10/1901	The first Nobel Prize in Physics was awarded to Wilhelm Conrad Röntgen, a German mechanical engineer and physicist, for his production and detection of electromagnetic radiation in a wavelength range known as X-rays or Röntgen rays.
12/10/1909	Guglielmo Marconi and Karl Ferdinand Braun were jointly awarded the Nobel Prize in Physics "for their contributions to the development of wireless telegraphy".
12/10/1945	ENIAC (Electronic Numerical Integrator and Computer); the first programmable, electronic, general-purpose digital computer; was first put to work for practical purposes. It was in continuous operation until 1955.
12/10/1993	Joseph Hooton Taylor Jr., K1JT and creator of the weak signal programs WSPR and WSJT, was awarded the Nobel Prize in Physics, along with Russell Alan Hulse, "for the discovery of a new type of pulsar, a discovery that has opened up new possibilities for the study of gravitation".
12/11/2023	NASA's Deep Space Optical Communications experiment beamed an ultra-high definition streaming video from a record-setting 19 million miles away (31 million kilometers, or about 80 times the Earth-Moon distance) using lasers, in a demonstration aimed at streaming very high-bandwidth video and other data from deep space.
12/12/1901	Guglielmo Marconi claimed to have received the first trans-Atlantic radio signal, in St. John's, Newfoundland, Canada from Poldhu, Cornwall. (Some dispute the claim.)
12/12/1912	Representatives of the Department of Commerce and Labor at the Brooklyn Navy Yard issued the first Certificate of Proficiency to Irving Vermilya, W1ZE, making him the first officially licensed radio amateur in the U.S.
12/12/1961	The world's first amateur radio satellite, OSCAR 1, was launched into space. It was also the first privately owned satellite and the first secondary payload. It orbited for 22 days before reentering the atmosphere.
12/14/1931	Alan Dower Blumlein filed a patent in London, UK for a two-channel audio system called "stereo".

12/15/1964 The U.S. Postal Service issued a commemorative stamp honoring amateur radio. It was first made available for purchase in Anchorage, Alaska where amateur radio operators played an important role in the aftermath of The Great Alaskan Earthquake on March 27th of that year.

12/17/1797 Joseph Henry was born in Albany, New York. He was the first Secretary of the Smithsonian Institution, inventor of the first practical electrical relay & namesake of the unit of Inductance.

12/17/1902 The world's first radio message to cross the Atlantic Ocean occurred, from Glace Bay, Nova Scotia, Canada.

12/17/1907 William Thomson, also known as Lord Kelvin, died in Largs, Scotland at age 83. Lord Kelvin calculated the coldest possible temperature (-273.15 Celsius, or 459.67 degrees Fahrenheit), developed what is now known as the Kelvin temperature scale, developed the second law of thermodynamics, and worked to install telegraph cables under the Atlantic, among other accomplishments.

12/18/1890 Edwin Howard Armstrong, inventor of FM (frequency modulation) radio and the superheterodyne receiver system, was born in Chelsea, Manhattan, New York.

12/18/1958 Signal Communications by Orbiting Relay Equipment (SCORE) was launched, becoming the world's first purpose-built communications satellite.

12/19/1958 President Dwight D. Eisenhower became the first person whose voice was ever transmitted through space when Project SCORE, the world's first communications satellite, went online.

12/19/2006 The FCC issued a Report and Order ending the requirement for Morse Code proficiency from all amateur radio licenses. The R&O took effect February 23, 2007.

12/22/1948 KPIX-TV, San Francisco's first television station, began broadcasting from atop the Mark Hopkins Hotel on Nob Hill.

12/23/1900 Reginald Aubrey Fessenden claims to have made the first transmission of human speech over radio, on Cobb Island, Maryland in the Potomac River. But Brazilian priest and inventor Roberto Landell de Moura also claims to have done so on June 3, 1900.

12/23/1947 The first transistor was completed at Bell Labs in Murray Hill, NJ by Walter H. Brattain and John A. Bardeen -- under the direction of William B. Shockley.

12/23/1975 The Metric Conversion Act was signed into law by President Gerald R. Ford, making the metric system "the preferred system of weights and measures for United States trade and commerce".

12/23/1994 The FCC adopted final rules implementing vanity call signs in the Amateur Service.

12/23/2009 The volunteer civilian communications program supporting the military changed its name to the "Military Auxiliary Radio System". It was previously the "Military Affiliate Radio System".

12/24/1906 The first radio broadcast for entertainment and music, and the first transmission of amplitude modulation, was transmitted from Brant Rock, Massachusetts to the general public, by Reginald Aubrey Fessenden.

12/24/1922 The first verified amateur radio signal from Europe was received in North America. The signal originated from the RSGB station (G)5WS at Wandsworth in South London, as part of the Third Transatlantic Tests.

Dec., 1915 The first issue of QST magazine was published. The price was 10 cents.

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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:
Which of the following types of propagation is most commonly associated with occasional strong signals on the 10, 6, and 2 meter bands from beyond the radio horizon?
B. Sporadic E

[Technician Class question pool (2022-2026) no. T3C04 (https://www.ncvec.org/index.php/2022-2026-technician-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.

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