THE eQRM

A P R I L 2022



The BVARA in Beaver County Pennsylvania

Beaver Valley Amateur Radio Association

W3SGJ

2M Repeater 145.310 PL 131.8

On the Cover Don't let the rain get you down. Start planning those radio tasks you didn't get finished before Winter. Check your grounds, cracked coax lines and any radio thing that may need your attention.

Inside this edition

Who We Are	3	Hamfests & General	9
		Announcements	
This Month	4	It's Your Dime	10
Get a License or Upgrade	6	Of Interest to All	11
New License and Upgrades	7	Bits and Pieces	17
Membership	8	Radio Sport	18



Check into our nets

Wednesday 2 Meter	Wednesday 10 Meter
8:30PM on 145.310 MHz PL 131.8	9:00PM on 28.470 MHz

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Who We Are

2022 BVARA OFFICERS

President: Jack Spencer, KZ3Z Vice President: Dan Grazulis, KB3VSP 2nd Vice Pres.: Doug Lawrence, K3GTX Treasurer: Pam Spencer, W3PMS Secretary: Norm Trunick, K3NJT Director: Tony Pavilonis, K3AHP Director: Jim Allen, KC3IXE Trustee: Doug Hanna, N4YKO

MONTHLY MEETINGS

E-Board meetings are now held the Saturday before the monthly club meeting.

VE testing begins at 5:00 PM.

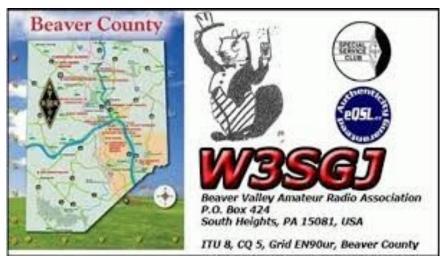
Regular meetings are at 6:30 PM

All meetings are held at the Beaver County Emergency Services Center 351 14th Street Ambridge, PA 15003 on the second Thursday of every month (unless otherwise stated).

2022

Apr 14 May 12 Jun 25-26 Field Day Jul 14 Aug 11 Sep 08 Oct 13 Nov 10 Dec Christmas Party







April 1 fun

This Month

This Month:

Speaker: Rich Soltesz, K3SOM

Topic:

Building, Testing, and Analyzing the ARRL 49:1 UNUN Kit

Including:

Continuing with our BVARA Presentation Series this year, we will take a close look this month at the ARRL's latest offering of a 49:1 UNUN Kit. Your first question is probably: "What in the world is a 49:1 UNUN and why would I want one?" We'll talk about what it is, what it costs, how hard it is to put together, and whether it is really worth all that effort. Those questions lead right into how you might use such a matching device on your coax and what are the benefits as well as the limitations that should be considered before you make a purchase decision.

I bought one from the ARRL and built it in a few casual evenings. The quality of every component in the kit was outstanding. The instructions are detailed and fairly easy to follow. Pictures helped out quite a bit. Besides using an ohmmeter to confirm that I wired the UNUN together correctly and all of the solder connections were good, I needed to do some additional dummy load tests across the HF spectrum with my antenna analyzer. By attaching the completed UNUN to a few different resistors and doing a few sweeps with my SARK-110, I hoped to uncover what to expect under conditions where the substitute antenna encountered mostly resistive loads with little reactance. This evaluation could continue inside without having to endure Winter's efforts to hold on before having to give it up to Spring as the calendar moved forward.

But wait, there's more! Now it was time to go outside, deploy the antenna and UNUN in a repeatable manner to record its performance as adjustments were made. These adjustments involved tuning for resonance across multiple bands, as well as adjusting the counterpoise and the location of a common mode choke to reduce RF pickup from the antenna. This is one exciting presentation that you won't want to miss.

Rich's Background:

Extra Class Ham, Licensed since 1962, VE, B.S. Electrical Engineering

More this Month

Weekly

The Freedom Square Diner in Monaca has a great wait staff. Come let them take your

The eQRM urges all Beaver County licensed amateurs to participate in the County's RACES and ARES programs.

Any Beaver County Amateur that is interested in participating in the RACES/ ARES programs can do so by checking into the Beaver County Public Service Net which meets every Monday evening at 8:30 PM local time on the WW3AAA 146.850 MHz repeater (131.8 PL) Thursday Morning Breakfast (or you can have lunch)

Come join us!



The BVARA meets every Thursday at the Freedom Square Diner in Center Township, just to the right of the Cinemark Center Township Marketplace at 09:30 AM. All radio amateurs and those interested in amateur radio are encouraged to come join us at our Thursday morning breakfast.

See you Thursday at



RACES / ARES The eQRM Urges All County Hams to Participate.



Get your License or Upgrade

If you are interested in getting your first FCC license or upgrading your current amateur radio license, the Beaver Valley Amateur Radio Association holds VE Test sessions (Volunteer Examinations) the second Thursday of each month at the Beaver County Emergency Services Center in Ambridge Pennsylvania prior to our BVARA Club meeting. If there is no meeting there is no test session. Please come take your test with us!

For more information, contact : Rich Soltesz, K3SOM (724) 847-0610 k3som@arrl.net



VE TEST SESSIONS

Beaver County Emergency Services Center 351 14th Street Ambridge, PA 15003. Tests begin promptly at 5 pm on the same day as BVARA Club Meetings (the second Thursday of the month). All classes of amateur radio license tests are administered.



ALL candidates MUST bring ALL of the following:

- 1. 2 forms of I.D. one MUST be a photo I.D.
- 2. A pencil AND a pen with blue or black ink.
- 3. The original AND a photocopy of any valid ham license.
- 4. The original AND a photocopy of any C.S.C.E.
- 5. The test fee of \$15 cash only.
- 6. Your FRN Number. (free from the FCC, call for details)

New License and Upgrades

BVARA VE Testing

Testing this Month :



March 2022 VE Test Session Results

Our March VE Test Session had two successful candidates, with the participants achieving their goal of passing the exam. Our new electronic filing system once again worked superbly with completion of new and/or upgraded licenses available in just two days. A congratulations email was then sent to the candidates with a snippet of their license page with their new callsign and/or verification that all information was entered correctly.

Our testing was conducted at our normal location at the Beaver County Emergency Services Center in Ambridge, PA. We are anticipating the continued use of the facility for our VE testing.

Congratulations to:

Mike Chalupiak, KC3MBP, Baden, PA passed the General exam

Julie Whalen, KC3TQY, New Brighton, PA passed the Tech exam

All of our BVARA testing would not be possible without the help of the following Extra-Class VE Team members:

Reg Genola – W3REG, Tony Pavilonis – K3AHP, Mick Pyzoha – N3OJP, Bart Stack – KB3NFM, and Bob Winkle – N3AZZ





73 from Rich Soltesz - K3SOM, VE Liaison



Page 7

Membership Information

By becoming a BVARA member you help secure the future of Amateur Radio in Beaver County. Additionally, the BVARA receives a portion of each ARRL

membership you purchase!

Join the BVARA and ARRL

Sign u	ıp for:	Price			
\bigcirc	BVARA full membership	25.00			
\bigcirc	BVARA student membership	15.00			
\bigcirc	BVARA associate membership	10.00			
\bigcirc	BVARA Child under 21 at home n	membership 5.00			
	One year ARRL membership	49.00			
	A Club Donation				
ARRI	L Member? Yes No	Total Enclosed			
Your	License Class (If you have one.)				
\bigcirc	Technician	Name			
\bigcirc	General	Address			
\bigcirc	Advanced				
\bigcirc	Extra Class	Email			
		Phone			
		Your Call sign			
Your Signature					

Make check or money order payable to:

The Beaver Valley Amateur Radio Association, P.O. Box 424 South Heights, Pa 15081

Hamfests & General Announcements

Oh My!



We in Western Pennsylvania will have to wait til Saturday June 4th and Sunday June 5th for the Breezeshooter's Hamfest – Butler Fairgrounds Route 422, Pennsylvania.

It's Your Dime

Remember back when you could communicate by "Pay Phone" for ten cents? This page is for anyone who wants to communicate with the BVARA community and beyond. Please send me your article that you would like posted on this page. Please, only topics and language in good taste. As the editor I reserve the option to post it or ignore it. Send your dime to me at: <u>kc3bxc.73@gmail.com</u>

New Amateur Radio License Applications Fee to Become Effective April 19, 2022

03/24/2022

A Public Notice released by the Federal Communications Commission (FCC) on March 23, 2022, in <u>MD Docket No. 20-270</u>, announced that new application fees for Wireless Telecommunications Bureau applications will become effective on April 19, 2022. The new fees, mandated by Congress, apply to applications for Amateur Radio licenses including those associated with filing Form 605, the Amateur Operator/Primary Station Licensee Application.

Effective April 19, 2022, a \$35 fee will apply to applications for a new Amateur Radio license, modification (upgrade and sequential call sign change), renewal, and vanity call signs.

Anticipating the implementation of the fee in 2022, the ARRL Board of Directors, at its July 2021 meeting, approved the "ARRL <u>Youth Licensing Grant Program</u>." Under the program, ARRL will cover a one-time \$35 application fee for license candidates younger than 18 years old for tests administered under the auspices of the ARRL Volunteer Examiner Coordinator (ARRL VEC). Qualified candidates also would pay a reduced exam session fee of \$5 to the ARRL VEC. ARRL is finalizing details for administering the program.

ARRL had filed comments in opposition to imposing a fee on Amateur Radio license applications. The FCC initially proposed a higher, \$50 fee. In a Report and Order (R&O), released on December 29, 2020, the amount was reduced -- the FCC agreeing with ARRL and other commenters that its proposed \$50 fee for certain amateur radio applications was "too high to account for the minimal staff involvement in these applications."

ARRL Volunteer Examiner Coordinator (ARRL VEC) Manager Maria Somma, AB1FM, explained that all fees are per application. "There will be no fee for administrative updates, such as a change of mailing or email address. The fees will be the responsibility of the applicant regardless of filing method and must be paid within 10 calendar days of FCC's receipt of the application. For applications filed by a VEC, the period does not begin until the application is received by the Commission, a ULS file number assigned, and an email sent by the FCC directly to the applicant."

VECs and Volunteer Examiner (VE) teams will not collect the \$35 fee at license exam sessions. New and upgrade candidates at an exam session will continue to pay the \$15 exam session fee to the ARRL VE team as usual, and pay the new, \$35 application fee directly to the FCC by using the CORES FRN Registration system (CORES - Login).

When the FCC receives the examination information from the VEC, it will email a link with payment instructions to each successful candidate who then will have 10 calendar days from the date of the email to pay. After the fee is paid and the FCC has processed an application, examinees will receive a second email from the FCC with a link to their official license or explanation of other action. The link will be good for 30 days.

Somma also explained that applications that are processed and dismissed will not be entitled to a refund. This includes vanity call sign requests where the applicant does not receive the requested call sign. "The FCC staff has suggested that applicants for vanity call signs should first ensure the call signs requested are available and eligible for their operator class and area, and then request as many call signs as the form allows to maximize their chances of receiving a call sign."

Further information and instructions about the FCC Application Fee are available from the ARRL VEC at <u>www.arrl.org/fcc-application-fee</u>. Details for the ARRL Youth Licensing Grant Program will be similarly posted there, when available.

Lessons from My First Antenna Install

In the March 2022 *eQRM* BVARA Newsletter, I mentioned purchasing a 2m J-Pole antenna at the WASHfest. This article describes a few of the lessons learned while installing that antenna on the roof at my QTH.

One of the first lessons learned was that there was more money to be spent. Items that needed to be purchased included coax, ground rod and wire, lightening arrestor, hose clamps, pipe u-bolt, etc. It seemed just when I thought I had everything I needed, I realized that I even needed more.

Which coax to use on the 2m antenna was easy to figure out. Using recommendations from other club members was the path I chose to answer my questions. I figured that I might as well tap into their knowledge and experience. The overall consensus for 2m coax was the LMR-400. It is not cheap, but worth every cent for the extra RF protection and less loss. I went for two lengths, one piece from the antenna on the roof to the ground, and the second piece from the



ground to inside the house. The first piece had a male PL259 connector on both ends. The second piece had one male PL259 and one male BNC connector. The connectors that I chose were soldered and then heat shrink wrapped around the coax. I chose not

to go with crimp connectors just from a personal preference to have more than just a mechanical connection.

One may ask why not just one long piece of LMR-400 rather than two pieces. The reason I chose two was to connect a lighting arrestor to the coax before the coax enters the house. The coax from the antenna attaches to one end of the lightening arrestor. The coax going to the house connects to the other side of the arrestor. The arrestor also has a ground wire connection. I used 8-gauge solid copper wire for the ground wire. One end of the wire was connected to the arrestor and the other end of the ground wire was connected to a 4-ft copper ground rod. The ground rod was pounded in the as far as possible into the soil and the shortest distance possible from the arrestor and coax assembly.



To minimize any RF that may be sneaking around on the outside of the coax (aka, common mode RFI), two options are being considered. The first option is to use two 31-Mix toroids on the coax entering the house after the arrestor. The LMR-400 is very inflexible and if chosen, I will be lucky to get more than one wrap of coax inside the toroid without any kinks, or worse weakened/crushed insulation. The second option uses a number of snap-on bead ferrites. The snap-ons are easier to use because they come open in two parts like a book. Also, by placing the snap-ons in series, i.e., back to back, results in a less severe coax bend angle as the coax is fed back through the open parts of the snap-on. I still plan on using the wider range 31-Mix ferrite (frequency range 1 MHz – 300 MHz) over other options that are the 43-Mix ferrite (frequency range 25 MHz – 300 MHz), 52-Mix ferrite (frequency range 200 MHz – 1 GHz), 61-Mix ferrite (frequency range 200 MHz – 2 GHz), 75-Mix ferrite (frequency range 150 kHz – 30 MHz), or the 77-Mix ferrite (frequency range 100 kHz – 50 MHz).

The last part before finishing the installation was preventing water/moisture from entering the coax at the connectors. During the March 2022 BVARA Club Meeting, there was an open Q&A session where individuals could ask questions from those in attendance. So, I asked what is the recommended process to seal off the coax ends. I was not disappointed. The following individuals responded and included Jack, KZ3Z, Dan, KB3VSP, Doug, N4YKQ, and Rich, K3SOM. Their collective recommendations were to do the following. 1) Using a very good brand of electrical tape, such as 3M or Scotch 88 brand, first wrap the tape with the sticky side out from the connector and coax. Also, to start in the middle of the reach being taped and then proceed down, then back up to the top, and finish by going back to the middle. The complete finished reverse tape application, with the sticky side out, will be overlapped twice with one tape end showing in the middle. 2) Using the same tape as in Step One, this time re-tape but with the sticky side down and overtop of the tape in Step One. Use the same starting location, in the middle, and overlap twice. 3) The third taping uses a self-amalgamating tape. This tape can either be rubber or vinyl based. When it is applied, follow the manufacture's recommendation to stretch the tape when wrapping over the tape in Step Two. Within a few hours, the tape will convert itself to a single continuous piece of tape. 4) The last and final step is to spray the taped assemble with Krylon Polyurethane paint.

I am currently waiting for a nice day to finish this antenna project. I ended up having to get a longer piece of the LMR-400 for the section from the roof to ground. The first piece was too short. So, I need to go back on the roof and remove the one section and replace it with the longer piece. Just when I thought I had everything I needed and purchased; well another lesson learned!

Larry Homich, KC3ROS

Page 13

Tri-State Radio Fest

The BVARA will be participating in the Tri-State Radio Fest which will be held on April 24th, 2022 at the Center Stage Banquet Hall located at 1495 Old Broadhead Rd in Monaca, PA. As in the past, we have secured a vendor table for the club to more easily promote our club and ham radio. Our table could be used as well, to offer ham parts and equipment for sale by our members. The event is sponsored by the Pittsburgh Antique Radio Society (PARS). That organization is sponsoring a Contest for participants to submit and for buyers to select the 'best' Westinghouse Radio submitted for the contest.



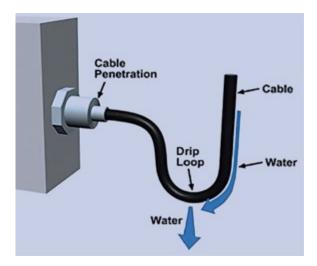
The doors open for buyers at 8:30 AM for the Indoor Flea Market and Auction announcements begin at 11:30 AM. Visitor Admission is \$5.00 at the door. There are always items to see that are unique, or beautifully restored, or just what you have been looking for.

April 24, 2022, Sunday

Electronics RF Fluid

RF fluid is generated when an antenna transmission line is energized by use. Small amounts of this precious fluid form as microscopic droplets on the outer skin of your transmission line. The atmospheric conditions have to be perfect for RF fluid generation. Much like sugar maple sap harvesting in March-April, RF fluid is harvested in Spring and only in April. Coax is the best transmission line to be used. Ladder line is unpredictable. Because of the separation of the ladder transmission lines, the polarity of the fluid can be quite unbalanced. There is a simple and interesting way to collect RF fluid.

To harvest RF fluid make a drip loop on your coax prior to entry into your shack.



There are many variables involved with RF fluid harvesting. There is a minimal amount of this precious fluid generated. The diameter of the coax, the length of the coax as well as the amount of rain all factor into determine the amount of RF fluid that will be produced. There is a ratio of the diameter of the coax with the amount of rain. The recommended length for the coax and other leading particulars can be found on the internet. The more rain water, the more diluted the RF fluid becomes. The collected fluid has to be distilled to remove all of the water. Water boils at 212 degrees F. RF fluid boils off at a much higher temperature and is then collected.

The RF fluid is used in electronics to make fluid filled-capacitors for radios. These capacitors are used in all types of radios, not just amateur radios. The higher the quality of the RF fluid the better the capacitors work at radio frequencies.

You may want to try your hand at collecting RF fluid for the hobby of it. For more information try the internet link http/www.aPRilFoOls.ameteur.radio.no.com.



Have you started planning what you are going to do for June 25-26 Field Day 2022?

Who's ready for Field Day, June 2022? For the experienced operators at DX Engineering, it's one of the highlights of the Ham Radio year.

The first ARRL Field Day was held in 1933. Ever since, Hams have gathered in June to practice emergency communications by setting up temporary stations and honing their operating skills, often in less than ideal conditions. Today, emergency preparedness remains an integral part of Field Day, but it's only part of what makes this Amateur Radio "open house" special. More than 40,000 people annually in the U.S. and Canada carry on the work of early Ham Radio pioneers by participating in an event that brings young and old together for use-ful demonstrations, experimentation, community outreach, friendly competition, and loads of good fellowship and food. Every year when we trudge out into the field and set up a 30-foot tower with a tri-bander to maintain continuous 24-hour operation, it reminds us of the long tradition of Ham Radio, and all the folks who built the foundation for this amazing and important hobby.



For everything you need to know about contesting, safety, and helpful advice about making Field Day a memorable event for you or your Amateur Radio club, click here to view <u>ARRL's Field Day page</u> with links.

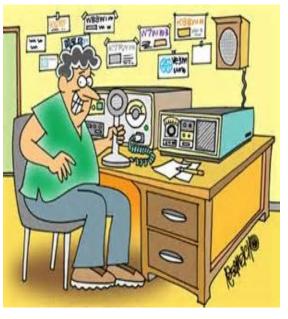
Courtesy of : An Amateur Radio Blog by DX Engineering

Bits and Pieces

Hello All,

It's Spring !!! I am so happy for the end of Winter. We may still see some snow, but the warmer temperatures are coming.

There are so many radio things I want to get accomplished before Summer. If you have been reading the eQRM for a time you know what I am talking about next. I want to put up that elusive

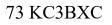


"dadgum pole" so I can put up a really big antenna for my HF use. I have been wanting to do this for so many years! I think it will become a reality this year. How about you? Is there some radio project you have been attempting that is eluding you? I hope you have the strong will to get it done this year too.

I didn't get to attend the last hamfest. The year is not over, I will get to attend a hamfest for some fun. I hope you have gotten to attend a hamfest already. If not, please get out there and enjoy some radio fun!

Most of you know my concern for safety in all that we do in our radio hobby. It can be as simple as controlling that hot tip of your soldering iron to more complex tasks that involve towers. Please always consider what you are about to do and think safety. Always safety first. I wish you a productive "Radio Spring project season" be careful and let me know what you have been up to.

Clear on your final, but I will be monitoring.







Radio Sport

Contest Corral

April 2022

Check for updates and a downloadable PDF version online at **www.arrl.org/contest-calendar**. Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start - Fin	ieh					
Date-Time Da		Bands	Contest Name	Mode	Exchange	Sponsor's Website
2 0800 2	2000	18-28	RSGB FT4 International Activity Day	Dig	Signal report, 4-char grid square	www.rsgbcc.org/hf/
2 1000 3	0400	14	PODXS 070 Club PSK 31 Flavors	Dig	SPC, mbr or name	www.podxs070.com
2 1200 3		3.5-28	EA RTTY Contest	Dig	RSQ, EA province or serial	concursos.ure.es/en
2 1400 3		1.8-144	Louisiana QSO Party	CW Ph Dig	RS(T), LA Parish or SPC	lagp.louisianacontestclub.org
2 1400 3		1.8-144	Mississippi QSO Party	CW Ph Dig	RS(T), MS county or SPC	arrl.org/sections/view/mississippi
2 1400 3		18-UHF	Missouri QSO Party	CW Ph Dig	RS(T), MO county or SPC	www.w0ma.org/index.php
2 1400 3		3.5-28	Florida State Parks on the Air	CW Ph Dig	Park ID or SPC	fispota.org/rules
2 1500 3		18-28	SP DX Contest	CW Ph	RS(T), SP province or serial	spdxcontest.pzk.org.pl/2021
5 0100 5		3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com
6 1200 6		18-28	A1Club AWT	CW	RST, name	a1club.org/contest/awt
6 2000 6 7 0000 8		3.5	UKEICC 80-Meter Contest Walk for the Bacon CRP Contest	Ph CW	6-char grid square RST, SPC, name, mbr or power	www.ukeicc.com/80m-rules.php
		7	SKCC Sprint Europe	CW	RST, SPC, name, mbr or "none"	qrpcontest.com/pigwalk40 www.skccgroup.com
7 2000 7 9 0000 9		18-28	GRP ARCI Spring QSO Party	CW	RST, SPC, mbr or power	grparci.org
9 0700 10		18-28	JIDX CW Contest	ČW	RST, JA prefecture or CQ zone	www.jidx.org/jidxrule-e.html
9 1200 10		3.5-28	DIG QSO Party, CW	CW	RST, mbr (if any)	diplom-interessen-gruppe.info
9 1200 10		18-28	OK/OM DX Contest, SSB	Ph	RS, OK/OM county code or serial	okomdx.crk.cz
9 1200 10		3.5-28	FTn DX Contest	Dia	4-char grid square	europeanft8club.wordpress.com
9 1200 10		3.5-28	IG-RY World Wide RTTY Contest	Dig	RST, 4-digit year first licensed	www.ig-ry.de/ig-ry-ww-contest
9 1200 10		18-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
9 1300 10		18-UHF	Nebraska QSO Party	CWPh	NE county or SPC (FT8: grid)	nebraskagsoparty.com
9 1400 10		1.8-144	New Mexico QSO Party	CW Ph Dig	Name, NM county or SPC	www.newmexicogsoparty.org
9 1400 10		A	Texas State Parks on the Air	CW Ph Dig	RS(T), park ID or SPC	www.tspota.org
9 1800 10		1.8-144	North Dakota OSO Party	CW Ph	PS(T), ND county or SPC	www.ndardsection.com
9 1800 10		18-50	Georgia QSO Party	CW Ph	RS(T), GA county or SPC	gagsoparty.com
9 2100 10		18-28	Yuri Gagarin International DX Contest	CW	RST, ITU zone	gc.gst.ru/en/section/32
10 0700 10	1900	3.5-14	International Vintage Contest HF	CW Ph	RS(T), 6-char grid square	aririminLjimdofree.com
10 1000 10	2100	3.5-14	WAB 3.5/7/14 MHz Data Modes	Dig	RS, serial, WAB square or country	wab.intermip.net/Contests.php
10 1800 10	2359	3.5-28	ARRL Rookie Roundup, SS8	Ph	Name, year first licensed, state/	www.arrl.org/rookie-roundup
					province/XE area/DX	
10 1900 10		3.5	RSGB RoLo SSB	Ph	RS, previous 6-char grid received	www.rsgbcc.org/hf
11 0000 11		18-28	4 States QRP Group Second Sunday	CWPh	RS(T), SPC, mbr or power	www.4sqrp.com
11 1900 11	2030	3.5-14	RSGB FT4 Contest	Dig	4-char grid square	www.rsgbcc.org/hf
11 1900 11	2300	144	144 MHz Spring Sprint	CW Ph Dig	4-char grid square	sites.google.com/site/ springvhfupsprints
13 0030 13	0230	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	nagcc.info
15 2100 16		18-28	Holdoc CW Splitt	CW Ph Dig	RS(T), 4X area or serial	iarc.org/iarc/#HolylandContest
16 0500 16		3.5.7	ES Open HF Championship	CW Ph	RS(T), serial	www.erau.ee
16 0600 17		3.5-28	Worked All Provinces of China	CWPh	RS(T), BY province or serial	www.mulandxc.com
16 0700 17		3.5-28	YU DX Contest	CW Ph	RS(T), YU/YT county or serial	www.yudx.yu1srs.org.rs
16 0900 17	_	3.5-28	COMM DX Contest	CW	RST, continent abbreviation	www.cgmmdx.com/rules
16 1600 17		3.5-28	Michigan QSO Party	CW Ph	Serial, MI county or SPC	www.migp.org/Rules.htm
16 1700 17		3.5-28	EA-ORP CW Contest	CW	RST, category, "M" if member	www.eagrp.com
16 1800 16	2159	18-50	Feld Hell Sprint	Dig	RST, mbr (if any), SPC, grid	sites.google.com/site/feldhellclub
16 1800 17	1800	1.8-144	Ontario QSO Party	CW Ph	RS(T), ON county or SPC	va3cco.com/ogp/rules.htm
17 0700 17		18-28	Dutch PACCdigi Contest	Dig	RST, PA province or serial	www.veron.nl
17 1200 17		1.8-144	Quebec QSO Party	CW Ph	RS(T), QC zone or SPC	wp1.quebecqsoparty.org
17 2300 18		18-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	grpcontest.com/pigrun
18 1500 18	1730	3.5,7	DARC Easter Contest	CW Ph	RS(T), DOK or serial	darc.de/der-club/referate/conteste
19 1900 19	2300	222	222 MHz Spring Sprint	CW Ph Dig	4-char grid square	sites.google.com/site/
				-		springvhfupsprints
21 0000 22	0300	14	Walk for the Bacon QRP Contest	CW	RST, SPC, name, mbr or power	qrpcontest.com/pigwalk20
23 0001 24	2359	28	10-10 International Spring	Dig	Name, mbr or "0," SPC	www.ten-ten.org
23 0800 23		3.5-21	Contest, Digital QRP to the Field	CWPh		
23 0800 23 23 1200 24		3.5-21	SP DX RTTY Contest	Dig	RST, SPC, name/SOTA RST, SP province or serial	www.zianet.com/qrp
23 1200 24		18-28	Helvetia Contest	CW Ph Dig	RS(T), HB canton or serial	www.pkrvg.org www.uska.ch/contest
23 1300 24		3.5-14	North American SSB Sprint	Ph	Other's call, your call, serial, name, SPC	ssbsprint.com/rules
24 1700 24		3.5-28	BARTG Sprint 75	Dig	Serial	bartg.org.uk
27 0000 27		18-50	SKCC Sprint	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
	_					sites.google.com/site/
27 1900 27	2300	432	432 MHz Spring Sprint	CW Ph Dig	4-char grid square	springvhfupsprints
27 2000 27	2100	3.5	UKEICC 80-Meter Contest	CW	6-char grid square	ukeicc.com/80m-rules.php
30 0600 1		2.3 GHz +	SBMS 2.3 GHz and Up Contest	CW Ph Dig	6-char grid square	n6nb.com/sbmsrules.htm
30 1200 1	1159	18-28	Russian WW MultiMode Contest	CW Ph Dig	RST(Q), UA oblast or serial	www.rdrclub.ru
30 1200 1		3.5-28	UK/EI DX Contest, CW	CW	RST, serial, UK/EI district code, serial	ukeicc.com/dx-contest-rules.php
30 1600 1	2159	7-28	Florida QSO Party	CW Ph	RS(T), FL county or SPC	floridaqsoparty.org/rules