OUR 26TH YEAR!

EPARA BEACON

VOL. 6, NUMBER 2 THE OFFICIAL NEWSLETTER OF THE EASTERN PENNSYLVANIA AMATEUR RADIO ASSOCIATION FEBRUARY 2022

NEXT CLUB MEETING: FEBRUARY 10TH

Monroe County Public Safety Center, 100 Gypsum Rd Stroudsburg, PA 18360

Welcome to the EPARA Beacon! This newsletter is published monthly and is the official newsletter of the Eastern Pennsylvania Amateur Radio Association. EPARA has served the amateur radio community in the Pocono Mountains for over 25 years. We have been an ARRL affiliated club since 1995. We offer opportunities for learning and the advancement of skills in the radio art for hams and non-hams alike. EPARA supports Monroe County ARES/RACES in their mission of providing emergency communications for served agencies in Monroe County. Feel free to join us at one of our meetings or operating events during the year. The club meets on the second Thursday of every month, at the Monroe County 911 Emergency Control Center. The business meeting starts at 7:30 P.M. Anyone interested is invited to participate in our meetings and activities.

ZOOM Meeting Info: Meetings begin at 7:30PM!

https://us02web.zoom.us/j/85463346031?pwd=bU1KcVZoaVZiVEUvdjRsUXlNNHZkZz09

Meeting ID: 854 6334 6031 Password: 244632

From The President

I hope you are all doing well. Last month we had to hold our meeting via Zoom only because of the high rate of Covid infections. As I type this it looks like the rates have dropped, so I think the latest wave has passed. I am hopeful to hold an in-person meeting in February. If we must go virtual again, we will announce it via email and during the nets.

Its election season for EPARA, I will be calling for nominations for officers and board members at the February and March meetings, elections for contested positions will be held during the March meeting. We are also going to discuss the purchase of a second M2 antenna for our EME project, so there are some important things on the agenda!

I hope some of you participated in Winter Field Day, it's a fun event and a little less congested and that makes it great for newer hams to work the bands. Don't forget about the many other contests throughout the year, contests are a great way to improve and hone your operating skills and make you a better ham, plus they can be a lot of challenging fun!

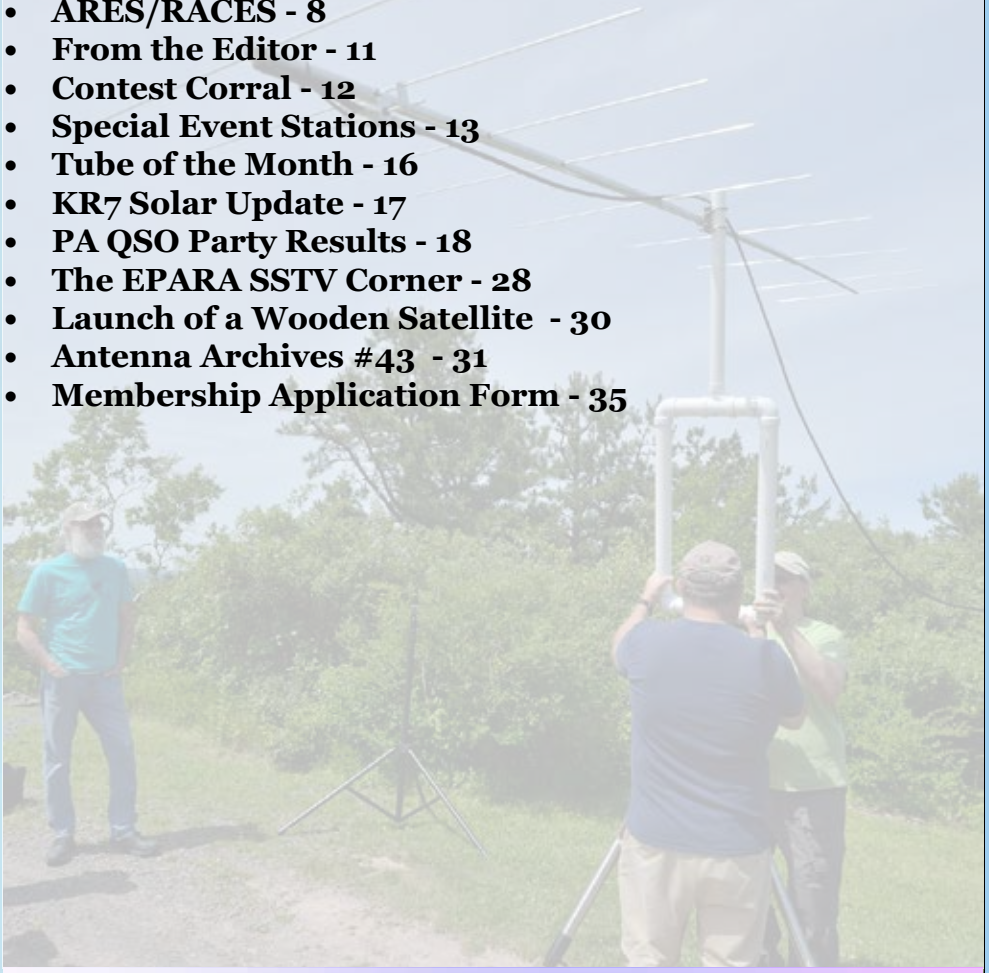
That's it for now. Our next meeting is on Thursday February 10th, I hope to see you all 73, Chris AJ3C

CONTACT INFORMATION

President Chris Saunders AJ3C: aj3c@gmx.com	Vice President Bill Carpenter AB3ME: bill47@ptd.net
Secretary Kevin Forest W3KCF: w3kcf@outlook.com	Treasurer Scott Phelan KC3IAO: kc3iao@hobbyguild.com
Member at Large Eric Weis N3SWR: n3swr@ptd.net	ARES EC Charles Borger KB3JUF KB3JUF@gmail.com

Postal Address:	Web Site:	Send dues to:	Newsletter submissions to:
EPARA	https://www.qsl.net/n3is/	EPARA	Eric Weis, N3SWR Editor
PO Box 521	Email:	PO Box 521	EPARAnewsletter@ptd.net
Sciota, PA 18354	N3IS@qsl.net	Sciota, PA 18354	

What's INSIDE this ISSUE



EPARA Net list

Monroe county ARES-RACES – Sunday's 8:30 PM, 146.865 MHz, PL -100 Hz

The Monday Night Pimple Hill repeater 8:30 PM (Repeater freq = 447.275 with a - 5MHz offset) DMR TECH Net on TG314273* Time Slot 2

SPARK Information/Swap Net – Tuesday's 8:30 PM, 147.045 MHz, PL 131.8 Hz

The Wednesday Night EPARA Hot Spot DMR Rag Chew net at 8:30 PM, TG 3149822* Time Slot 2 (N3IS Talk Group)

EPARA Tech Net – Friday's 8:30 PM, 147.045 MHz, PL +131.8 Hz

*TG = Talk Group

Announcements
AND UPCOMING EVENTS

EPARA Patches: **Club patches are in! For those that ordered them please step forward to collect them. We also have extra just in case …**

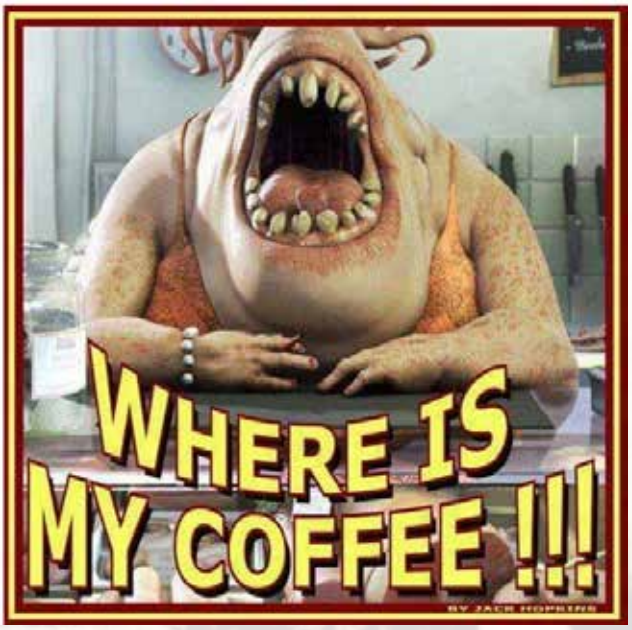
EPARA Club Dues
Club dues were due January 1st and are temporarily extended due to COVID reasons. For those that missed the chance to stay current, there are two (2) methods available to pay to help make this easy for all. Contact Scott KC3IAO via his email: KC3IAO@hobbyguild.com and you can send him a check or pay via PayPal.

VE Sessions
VE sessions have returned. Please contact Chris AJ3C for dates and info should you require a test session.

Amateur radio Classes
Technician classes are scheduled to begin in March, and General classes in Early summer.

Hamfest!
The date for next years hamfest has been decided and it's to be on Sunday, September 18th, 2022.

Attention EPARA DMR HAMs!
Mark it in your calendar, folks! The DMR-MARC World Wide Net is held every Saturday at 17:00 UTC (12:00pm EST) and is available to hams around the globe via DMR repeaters in Canada, USA, Germany, Australia, South Africa, New Zealand, Switzerland, Spain, Austria, Finland, and Sweden. With over 2,500 DMR users worldwide, this net is one of the busiest nets available in the area, with typical weekly check-ins of around 100 stations.
You can access the net through the Brandmeister network also on your hotspot, talk group 91.
See you on the net!
Thanks! 73 KD2FTA



Rule #1 of Amateur Radio, it is a hobby, unless you figured out a way to fashion a living out of it.
Rule #2 of Amateur Radio, life is not a hobby and typically carries heavy responsibilities of everything that is not a hobby.
Rule #3 of Amateur Radio, never give up a LIFE event for a Ham event. You may make some great memories at the Ham event, but the guilt you may carry missing a LIFE event can be a terribly heavy millstone.
Rule #4 of Amateur Radio, as technology moves forward, so does Ham Radio - do what makes you happiest, experiment with other elements of Ham Radio as LIFE allows.
Rule #5 of Amateur Radio, it is only Ham Radio, when confused always refer to Rule #1 through #4.

TEST YOUR KNOWLEDGE!

How does a narrow-band roofing filter affect receiver performance?

A. It improves sensitivity by reducing front end noise
B. It improves intelligibility by using low Q circuitry to reduce ringing
C. It improves dynamic range by attenuating strong signals near the receive frequency
D. All of these choices are correct

Last month's answer was, A. The velocity factor of a transmission line is the speed at which a signal passes through the line relative to the speed of light. The speed of signals in a vacuum is the speed of light so the velocity factor of a signal in RG 213 and RG 8 coax is 66, so signals travel 33% slower in these cables than in a vacuum. This important to know for phasing multiple antennas.

DMR
DIGITAL MOBILE RADIO

The EPARA HOT SPOT Wednesday night DMR rag chew is here!

Wednesday evenings at 8:30 PM local, 0:30 UTC!

Tune your DMR radios to Talk Group 3149822 TS2 to join the

N3IS EPARA Hot Spot rag chew DMR net.

Listen to the Tech Net Friday nights on the 147.045 repeater to learn more about joining this net and for upcoming ZOOM meetings announcements to learn more about programing your radios and hot spots!

To: All EPARA Members and Users of the WA3MDP Repeater System

Re: The 147.045 Repeater Malicious Interference

Over the past few years the 147.045 repeater here in Monroe County has been plagued with an increasing amount of deliberate and malicious interference. While some of this interference has been directed at some specific operators the end results has been a wide area large foot print repeater that get little to no use except for a few regularly scheduled nets.

This is not a problem that is special to just the 147.045 system. Nationwide FM repeaters (and HF bands for the matter) are also being interfered with deliberately and the FCC lacks the manpower and ability to search out the people causing the issues.

The ARRL in conjunction with the FCC reorganized the Volunteer Monitor program a while back to assist in tracking down QRM on all of the amateur bands. While some progress has been made there obviously is a lot more to be done.

A small dedicated group has been tracking the QRM locally by various means for over a year. While some of the sources have been narrowed down it is now time to get the rest of the local ham community involved.

What we are asking people to do is when you listen to the 147.045 repeater also listen to the "input" frequency which is 147.645 (no tone is required). If you should hear any of the malicious and deliberate QRM occurring, do the following:

1) DO NOT ENGAGE IN A CONVERSATION WITH THESE INDIVIDUALS.

2) If you hear farting, cat calls, high pitch cartoon voices, music, etc write down the DATE, TIME, YOUR LOCATION and APPROX STRENGTH OF THE QRM STATION. If you have a beam antenna and can provide a heading that would be great too!

3) Send your listening report to the email address LIDSonzero45@gmail.com.

ALL information will be kept confidential and with this added information we hope to narrow down the locations that have already been identified.

In closing let me assure you that the people looking for the sources of the interference are doing so with the blessing of the repeater owners. It is our desire to see the 147.045 repeater system return to the quality repeater that it used to be many years ago.

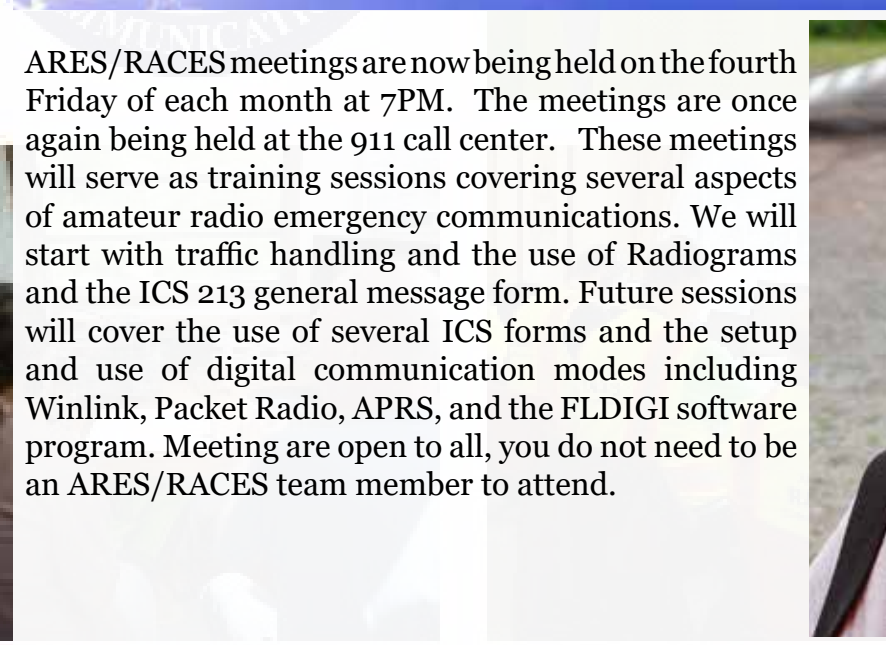
Thank you in advance for your cooperation.

VE Testing & Classes

Anyone looking to take an exam is encouraged to contact Chris AJ3C to preregister at least one (1) week in advance of the test date. If you have any questions or to register, Chris can be reached via email AJ3C@GMX.COM. VE sessions are being held the 4th Friday of each month at 6pm at the Monroe County 911 training center. Seating is limited for the time being so we can follow the health guidelines set forth by the county and state.

VE sessions are back - contact Chris AJ3C for further information!

AMATEUR RADIO CLASSES



ARES/RACES meetings are now being held on the fourth Friday of each month at 7PM. The meetings are once again being held at the 911 call center. These meetings will serve as training sessions covering several aspects of amateur radio emergency communications. We will start with traffic handling and the use of Radiograms and the ICS 213 general message form. Future sessions will cover the use of several ICS forms and the setup and use of digital communication modes including Winlink, Packet Radio, APRS, and the FLDIGI software program. Meeting are open to all, you do not need to be an ARES/RACES team member to attend.

Want to Put Your Ham Radio Skills to Good Use? Get Involved in

EmComm!

One of the missions of the Amateur Radio Service is for amateur radio operators to provide public service and emergency communications (EmComm) when needed. We act as a voluntary noncommercial communication service and pitch in to help our communities and first responders.

So, what organizations are out there for community-minded amateur radio operators and what can we do to help?

Join In

One good entry point into public service and emergency communications is to join SkyWarn, a volunteer program run by the National Weather Service (NWS) with more than 290,000 trained severe weather spotters. These volunteers help keep their local communities safe by providing timely and accurate reports of severe weather to the NWS.

Not all of these weather spotters are amateur radio operators, but many are. Amateur radio communications can report severe weather in real time. When severe weather is imminent, SkyWarn spotters are deployed to the areas where severe weather is expected. A net is activated on a local repeater and SkyWarn spotters who are Hams check into that net. The net control advises the spotters when they might expect to see severe weather, and the spotters report conditions such as horizontal winds, large hail, rotating clouds, and even tornadoes.

To become a SkyWarn spotter, you must attend a class that teaches you the basics of severe weather, how to identify potentially severe weather features, and how to report them. The classes are free and typically last about two hours. Check your local NWS website for class schedules.

ARES/RACES/CERT

Another way Hams can become involved in public service and emergency communication is to join an ARES or RACES group. Technically, these are two separate services—the Amateur Radio Emergency Service (ARES) is run by the ARRL, while the Radio Amateur Civil Emergency Service (RACES) is a function of the Federal Emergency Management Agency (FEMA). Amateur radio operators who typically take part in one also take part in the other.

To participate in RACES, you'll need to take some self-study FEMA courses in emergency preparedness and emergency-response protocols. Classes may or may not be required to participate in ARES. These requirements are set by each individual ARES group. To get involved with either ARES or RACES, ask your local club members when they meet. You can also contact the Section Manager or Emergency Coordinator for your ARRL section. To contact them, click here and find the section that you live in.

Amateur radio operators belonging to ARES (and its predecessor, the Amateur Radio Emergency Corps) have responded to local and regional disasters since the 1930s, including the 9/11 attacks, and Hurricane Katrina and Hurricane Michael, among others.

The Community Emergency Response Team (CERT) program trains volunteers—both Hams and non-hams—how to be prepared for disasters that may impact their area. They provide basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. CERT offers a nationwide approach to volunteer training and organization that first responders can rely on during disaster situations, allowing them to focus on more complex tasks.

What Gear Do You Need?

For most local needs, a 5-watt VHF/UHF handheld transceiver is sufficient for utilizing local repeaters to relay messages and report on conditions as they exist. Replacing the radio's stock antenna with a higher gain antenna or connecting it to a magnetic mount on a vehicle will increase range significantly.

Even better is a VHF/UHF mobile radio installed in your vehicle with 25 or more watts output and a good mobile antenna. In the event the repeater loses power, you can talk over a considerably larger area in simplex mode with the extra power and a good mobile antenna.

If you work with an ARES or RACES group, you may be asked to act as a county control station. In this capacity, you'd need both HF and VHF transceivers in a fixed location, such as your house, with a good antenna system and emergency power capabilities like a generator or batteries. This allows you to make contacts within your state and throughout the U.S.

Helping Hams

Ham radio can play a key role in emergency situations. Here are a few examples:

- Ham radio connected firefighters and police departments, Red Cross workers, and other emergency personnel during the 2003 blackout that affected the northeast United States.
- In 2017, fifty amateur radio operators were dispatched to Puerto Rico to provide communications services in the wake of Hurricane Maria.
- Amateur radio operators provided communications in the aftermath of the Boston Marathon bombing when cellphone systems became overloaded.

- During Hurricane Katrina, more than one thousand ARES volunteers assisted in the aftermath and provided communications for the American Red Cross.
- During the devastating Oklahoma tornado outbreak that began in May 1999, amateur radio operators—giving timely ground-truth reports of severe weather—played a critical role in the warning and decision-making processes at the NWS Weather Forecast Office in Norman, Oklahoma.
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Credit: https://www.onallbands.com/want-to-put-your-ham-radio-skills-to-good-use-get-involved-in-emcomm/

From the Editor

Eric, N3SWR

February.... I guess we made it this far without a major storm this year. Now watch - after I send out this newsletter we will get slammed and I'll get hate mail sent to me. But then again it's a new year I'm looking forward to the next month because Spring is right around the corner!

I've been busy finishing up so many indoor projects that have been on the back burner. I hope to dive into repairs that I've slated for winter since I can actually concentrate on them. But for now the rooms and hallway are getting a coating of paint and a few upgrades along the way.

Field Day is just down the road a bit too - are ya ready for some fun!?!?!
I know i am :)

Till next month, 73

Eric
N3SWR

We cannot solve our problems with the same thinking we used when we created them.
Albert Einstein

Topics of Interest

Have an idea you would like to share with your fellow hams? Interested in one of the new exotic digital modes and would like to get others interested in it too? Found a blog somewhere that you think others would find interesting? Members are encouraged to submit items of interest for publication. Submitted articles (are suggested) to be no more than a page or two in length and may be edited for content and grammar. The EPARA officers and newsletter editor reserve the right to determine which items will be included in The Beacon. The deadline for publication is the 15th of the month. The publication date will be at the end of each month. Copyrights are the property of their respective owners and their use is strictly non-profit/educational and intended to foster the spirit of amateur radio.

If you've taken pictures at an event and would like to submit them for possible inclusion in the newsletter, forward them to the newsletter editor. Please send action shots, if possible. Faces are often preferable over the backs of heads. Many hams may be way too overweight, so please consider using a wide-angled lens.

Disclaimer

The Beacon is not representative of the views or opinions of the whole organization, and such views and opinions expressed herein are of the individual author(s).

Bruce Draper, AA5B, aa5b.corral@gmail.com

Contest Corral

February 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 - Finish Date-Time		Start - Finish Date-Time		Bands	Contest Name	Mode	Exchange	Sponsor's Website
2	1700	2	2000	144	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en
2	2000	2	2100	3.5	UKEICC 80-Meter Contest	Ph	6-char grid square	ukeicc.com/80m-rules.php
3	0000	4	0300	7	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, name, mbr or power	qrpcontest.com/pigwalk40
3	1800	3	2200	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid square	nrricontest.no
3	2000	3	2200	1.8-50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
5	0000	6	2359	1.8-UHF	Vermont QSO Party	CW Ph Dig	RS(T), VT county or SPC	www.ranv.org/vtqso.html
5	0001	6	2359	28	10-10 International Winter Contest, SSB	Ph	Name, mbr or "0," SPC	www.ten-ten.org
5	0600	5	1800	1.8-28	EurAsia HF Championship	CW Ph	RS(T), 6-char grid square	www.eurasia-contest.com
5	1200	6	1200	3.5-28, 144	F9AA Cup, CW	CW	RST, serial	www.site.urc.asso.fr
5	1200	6	2359	3.5-28	Mexico RTTY International Contest	Dig	RST, XE state or serial	www.rtty.fmre.mx
5	1400	5	2359	1.8-28	Minnesota QSO Party	CW Ph Dig	Name, MN county or SPC	www.w0aa.org/mnqp-rules
5	1400	5	2359	1.8-28	FYBO Winter QRP Sprint	CW Ph Dig	RS(T), SPC, name, power, temperature	arizonascqrpions.apps-1and1.com
5	1600	5	1800	3.5-28	FISTS Saturday Sprint	CW	RST, SPC, name, mbr or "0"	fistsna.org/operating.html#sprints
5	1600	5	1900	3.5	AGCW Straight Key Party	CW	RST, serial, class, name, age	alt.agcw.de/index.php/en
5	1600	6	2359	1.8-28	British Columbia QSO Party	CW Ph	RS(T), BC district or SPC	orcadxcc.org/bcqp_rules.html
5	1800	6	1800	1.8-28	European Union DX Contest	CW Ph	RS(T), EU region or ITU zone	eudxcc.altervista.org/eu-dx-contest
5	2300	6	0300	3.5-14	North American Sprint, CW	CW	Other's call, your call, serial, name, SPC	ncjweb.com
6	1400	9	0800	1.8-144	Classic Exchange, CW	CW	Name, RST, SPC, rig information	www.classicexchange.org
7	1630	7	1729	3.5, 7	OK1WC Memorial (MWC)	CW	RST, serial	memorial-ok1wc.cz
7	2000	7	2130	3.5	RSGB 80-Meter Club Championship, SSB	Ph	RS, serial	www.rsgbcc.org/hf
8	0200	8	0400	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com
9	0130	9	0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info
9	1700	9	2000	432	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en
12	0000	13	2359	3.5-28	CQ WW RTTY WPX Contest	Dig	RST, serial	cqwpxrtty.com/rules.htm
12	1100	12	1300	7, 14	Asia-Pacific Spring Sprint, CW	CW	RST, serial	jsfc.org/apsprint/aprule.txt
12	1200	13	1200	1.8-28	Dutch PACC Contest	CW Ph	RS(T), PA province or serial	pacc.veron.nl
12	1200	13	2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
12	1200	13	2359	1.8	KCJ Topband Contest	CW	RST, JA prefecture or continent code	www.kcj-cw.com
12	1400	14	0200	All	YLRL YL-OM Contest	CW Ph Dig	Serial, RS(T), SPC	ylrl.org/wp/yl-om-contest
12	1500	13	1500	1.8-28	OMISS QSO Party	Ph	RS, SPC, mbr (if any)	omiss.net/Facelift/qsoparty.php
12	1900	12	2300	1.8	RSGB 1.8 MHz Contest	CW	RST, serial, UK district code (if UK)	www.rsgbcc.org/hf
12	2300	13	2300	1.8-14	AWA Amplitude Modulation QSO Party	Ph	Name, SPC	antiquewireless.org
13	1300	13	1700	3.5, 7	Balkan HF Contest	CW Ph	RS(T), serial	arabih.ba
14	0000	14	2359	1.8-7	PODXS 070 Club Valentine Sprint	Dig	Name, OM or YL, SPC	www.podxs070.com
14	0100	14	0259	3.5-14	CQC Winter QSO Party	CW	RST, SPC	www.coloradoqrpclub.org
14	0100	14	0300	1.8-28	4 States QRP Group Second Sunday	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com
14	1300	18	2359	All (no WARC)	ARRL School Club Roundup	CW Ph Dig	RS(T), class (I/C/S), SPC	arrl.org/school-club-roundup
14	1630	14	1729	3.5, 7	OK1WC Memorial (MWC)	CW	RST, serial	memorial-ok1wc.cz
16	1900	16	2030	3.5	AGCW Semi-Automatic Key Evening	CW	RST, serial, year first used a bug	alt.agcw.de/index.php/en
16	2000	16	2130	3.5	RSGB 80-Meter Club Championship, Data	Dig	RST, serial	www.rsgbcc.org/hf
17	0000	18	0300	14	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, name, mbr or power	qrpcontest.com/pigwalk20
19	0000	20	2359	1.8-28	ARRL International DX Contest, CW	CW	RST, state or province; DX; power	www.arrl.org/arrl-dx
19	1200	20	1159	1.8-28	Russian PSK WW Contest	Dig	RST, oblast or serial	rdrclub.ru/russian-ww-psk-contest
19	1900	19	2059	1.8-28	Feld Hell Sprint	Dig	RST, mbr, SPC, grid	sites.google.com/site/feldhellclub
20	2100	20	2300	3.5-28	FISTS Sunday Sprint	CW	RST, SPC, name, mbr or "0"	fistsna.org/operating.html#sprints
20	2300	21	0100	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	qrpcontest.com/pigrun
21	1630	21	1729	3.5, 7	OK1WC Memorial (MWC)	CW	RST, serial	memorial-ok1wc.cz
23	0000	23	0200	1.8-50	SKCC Sprint	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
23	2000	23	2100	3.5	UKEICC 80-Meter Contest	CW	6-char grid square	www.ukeicc.com/80m-rules.php
24	2000	24	2130	3.5	RSGB 80-Meter Club Championship, CW	CW	RST, serial	www.rsgbcc.org/hf
25	2200	27	2200	1.8	CQ 160-Meter Contest, SSB	Ph	RS, SP or CQ zone	cq160.com/rules.htm
26	0600	27	1800	3.5-28	REF Contest, SSB	Ph	RS, French department or serial	concours.r-e-f.org/reglements
26	1200	27	1200	3.5-28	FTn DX Contest	Dig	4-char grid square	europeanft8club.wordpress.com
26	1300	27	1300	3.5-28	UBA DX Contest, CW	CW	RST, serial, ON province (if ON)	www.uba.be/en
26	1500	27	0159	1.8-50	South Carolina QSO Party	CW Ph Dig	RS(T), SC county or SPC	scqso.com
26	1800	27	0559	3.5-28	North American QSO Party, RTTY	Dig	Name, SPC+DC	www.ncjweb.com
26	1800	27	0559	3.5-28	NA Collegiate Championship, RTTY	Dig	Name, SPC+DC	www.w9smc.com/nacc
27	1400	27	1700	3.5-28	High Speed Club CW Contest	CW	RST, mbr or "NM"	www.highspeedclub.org
27	1500	28	0100	3.5-144	North Carolina QSO Party	CW Ph Dig	NC county or "SPC"	ncqsoparty.org/rules
28	1630	28	1729	3.5, 7	OK1WC Memorial (MWC)	CW	RST, serial	memorial-ok1wc.cz
28	2000	28	2130	3.5-14	RSGB FT4 Contest	Dig	4-char grid square	www.rsgbcc.org/hf

There are a number of weekly contests not included in the table above. For more info, visit: **www.qrpfoxhunt.org**, **www.ncccsprint.com**, and **www.cwops.org**. All dates refer to UTC and may be different from calendar dates in North America. Contests are not conducted on the 60-, 30-, 17-, or 12-meter bands. Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity. XE = Mexican state. Listings in blue indicate contests sponsored by ARRL or *NCJ*. The latest time to make a valid contest QSO is the minute listed in the "Finish Time" column. *Data for Contest Corral is maintained on the WA7BNM Contest Calendar at* **www.contestcalendar.com** *and is extracted for publication in* QST *2 months prior to the month of the contest. ARRL gratefully acknowledges the support of Bruce Horn, WA7BNM, in providing this service.*

Amateur Radio Special Event Stations!

02/01/2022 | JY1 Memorial Special Event

Feb 1-Feb 28, 0000Z-2359Z, N9SES, Lake Station, IN. Arab QRZ International. 14.025 14.076 14.250 21.025. QSL. Ayman Azar, 2861 Decatur Street, Lake Station, IN 46405. https://www.n9ses.com/jy1-memorial-special-event-station

02/05/2022 | EARS (Ellijay Amateur Radio Society) 25th Anniversary

Feb 5-Feb 13, 1500Z-2300Z, W4HHH, Ellijay, GA. Ellijay Amateur Radio Society (EARS). 14.171 7.171. Certificate & QSL. Ellijay Amateur Radio Society, 78 N Garrett Branch Road, Ellijay, GA 30536. W4HHH will transmit on 10, 12, 15 17, 20 40 80 & 160 meter bands off and on throughout the 9 days of the event. The certificate will indicate which of the several operators are contracted and, hopefully, participants will try for a clean sweep and contact all EARS operators. w4hhh.org

02/05/2022 | Republic of Texas Central National Road

Feb 5, 1400Z-2200Z, K5R, Rockwall, TX. Rockwall Amateur Radio Club. 14.050 14.074 14.265. QSL. Rockwall Amateur Radio Club, P.O. Box 1791, Rockwall, TX 75087. Commemorating the Republic of Texas Central National Road and it's impact on the history of Rockwall and all of Texas. Planned operation on CW, FT-8, and SSB. QSL card available for download from the Rockwall Amateur Radio Club website. sites.google.com/site/rarck5rkw

02/05/2022 | Traveler's Rest RV Resort and Golf Course 50th Anniversary

Feb 5, 1200Z-2000Z, W5O, Dade City, FL. Traveler's Rest ARC. 7.240 14.240. Certificate. K4TRR Anniversary, 29129 Johnston Rd. Lot 09-03, Dade City, FL 33523. Members of K5TRR (club station for Traveler's Rest RV Resort and Golf Course) celebrating 50 years of service to the RV-Ham traveler. k4trrinfo@gmail.com

02/07/2022 | 50th Anniversary of GERATOL W.A.S.Net

Feb 7-Feb 20, 1000Z-2100Z, W1G, Wheelwright, MA. GERATOL Worked All States Net. 3.668 During Net Time 20 Meter SSB 40 Meter SSB. QSL. Kevin Lynch, POB 124, Wheelwright, MA 01094. Special event station, W1G will be active from February 7, 2022 through February 20, 2022 to commemorate the 50th Anniversary of the GERATOL Worked All States Net. A special QSL card will be available to those who send an SASE with their QSL. geratol.net

02/07/2022 | Abraham Lincoln's Birthday

Feb 7-Feb 14, 1200Z-0600Z, W9L/K9L, Lerna, IL. National Trail Amateur Radio Club. 14.250 7.250. QSL. National Trail Amateur Radio Club, Attn: Lincoln Birthday, P.O. Box 903, Effingham, IL 62401. All bands all modes. K9L will be managed by multiple club members running from home Feb. 7th thru the 13th. W9L will only be used on location at the farm owned by President Lincoln's father and stepmother. Lincoln Log Cabin information can be found at www.lincolnlogcabin.org. Special event QSL cards can be obtained by sending a SASE to NATIONAL TRAIL AMATEUR RADIO CLUB INC Attn: Lincoln Birthday PO BOX 903 Effingham, IL 62401 www.nationaltrailarc.org

02/07/2022 | Minnesota QSO party

Feb 7, 1400Z-2359Z, N0SPN/N0V/W0M, Kasson, MN. Minnesota Wireless Association. 28.450 14.250 7,250 3.850. QSL. Danny Stroh, 27172 675 Street, Kasson, MN 55944. dstroh57@yahoo.com or https://www.w0aa.org

02/12/2022 | Washington's Birthday

Feb 12, 1500Z-2100Z, W0ARC, Washington, IA. Washington Area Amateur Radio Club, Inc.. 14.250 7.250. QSL. Mark Lukins, 802 N 2nd Ave, Washington, IA 52353. SASE please. www.waarc.net

02/13/2022 | Wisconsin SimCom 2022

Feb 13-Feb 20, 0600Z-0600Z, W9WCA, Junction City, WI. Wood County ARES/RACES. Allstar 52770/Echolink W9WCA-L 7.250 14.250 3.970. QSL.

Amateur Radio Special Event Stations!

Wood County ARES/RACES, Attn: SimCom SES, 5421 Madison Circle, Wisconsin Rapids, WI 54494. This is the special event for the 2022 SimComm exercise in Lake Delton, Wisconsin. We will be operating the event outside of the times we will be directly performing tasks related to the exercise. QSL with SASE via W9BBF. kb9stb@gmail.com

02/16/2022 | 2022 Speedweek/Daytona 500

Feb 16-Feb 20, 0000Z-2359Z, N4DAB, Daytona Beach, FL. Daytona Beach CERT Amateur Radio Team. 14.255 14.074 7.255 7.074. Certificate. Steve Szabo, WB4OMM, Trustee, 536 Central Park Blvd., Ponce Inlet, FL 32127. n4dab@n4dab.com or www.n4dab.com

02/17/2022 | HL Hunley Commemoration and Special Event

Feb 17, 1400Z-1900Z, N4HLH, Sullivans Island, SC. Trident Amateur Radio Club. 14.262 7.262. QSL. QSL Manager, P.O. Box 60732, North Charleston, SC 29419. https://www.tridenthams.org/hl-hunley

02/19/2022 | Cajun Coast Eagle Expo

Feb 19, 1600Z-2000Z, W5BMC, Patterson, LA. Bayouland Emergency Amateur Radio Service [BEARS]. 7250 14250 Echo Link W5BMC-R 507010. QSL. Deborah Price N5FMI, 708 Front St, Morgan City, LA 70380. Set up will be on the banks of the Lower Atchafalaya River at Captain Caviar's Tour Boat Landing Under 200 year old live oak trees

02/19/2022 | George Washington's Birthday

Feb 19-Feb 20, 1700Z-1000Z, K4US, Alexandria, VA. Mount Vernon Amateur Radio Club. 14.260 14.074 7.040. QSL. MVARC, P.O. Box 7234, Alexandria, VA 22307. Annual station celebrating our first president's birthday is held on the grounds of his Virginia home at the Mt Vernon Greenhouse. QSL with SASE to: MVARC P.O. Box 7234 Alexandria, VA 22307 mvarc.org

02/19/2022 | Ice Station WØJH (Frozen Lake Portable) *Updated Info*

Feb 19-Feb 21, 1600Z-2300Z, W0JH, Stillwater, MN. Stillwater, MN Amateur Radio Assoc. (SARA). 3.860 7.260 14.260 21.360. Certificate. Shel Mann, 1618 Pine St. West, Stillwater, MN 55082. We will have multiple stations simultaneously operating on different bands and different modes. In keeping with COVID social distancing protocols, we will operate from our individual QTHs this year. In a meager attempt to drive away the remainder of Minnesota winter, the Stillwater Amateur Radio Association will be generating as much RF as possible over the President's Day long weekend. Certificates will ONLY be sent via email in PDF format. (Send requests with standard QSL confirmation info via email to: IceStation2022@radioham.org) There is no need to send a QSL card. Info: www.qrz.com/db/w0jh & www.radioham.org. IceStation2022@radioham.org

02/19/2022 | Scouts BSA WHOA Weekend

Feb 19, 1400Z-2000Z, W1M, Russell, MA. Western Massachusetts Council, Scouts BSA. 7.190 10.115 14.060 14.290. QSL. Tom Barker, WA1HRH, 329 Faraway Road, Whitefield, NH 03598. Monthly seasonal outdoor activities for Scouts and the general public including "ham radio in the woods." Paper logging. QSL via SASE and eQSL.

02/19/2022 | Voice of America 80th Anniversary of the First Broadcast Overseas

Feb 19-Feb 21, 1400Z-2359Z, W3V, Washington, DC. Voice of America Amateur Radio Club. 3.880 7.280 14.280. Certificate & QSL. Voice of America Amateur Radio Club, 330 Independence Ave. SW, Rm 2525-croft, Washington , DC 20237-0073. Also operating W8O and W4A. See separate listings. https://www.qsl.net/k3voa

02/19/2022 | Voice of America 80th Anniversary of the First Broadcast Overseas

Feb 19-Feb 21, 1400Z-2359Z, W8O, West Chester, OH. West Chester Amateur Radio Association. 3.880 7.280 14.280. Certificate & QSL. West Chester Amateur Radio Association, 8070 Tylersville Rd, West Chester, OH 45069. W3V and W4A also participating. See separate listings. https://wc8voa.

Amateur Radio Special Event Stations!

org

02/19/2022 | Voice of America 80th Anniversary of the First Broadcast Overseas

Feb 19-Feb 21, 1400Z-2359Z, W4A, Greenville, NC. Bright Leaf Amateur Radio Club. 3.880 7.280 14.280. Certificate & QSL. Brigh Leaf Amateur Radio Club, c/o Eddie R. Campbell, W4JNC, 2421 Cobb Dail Rd., Farmville, NC 27828. W3V and W8O also participating. See separate listings. https://w4amc.com

02/20/2022 | George Washington's Birthday

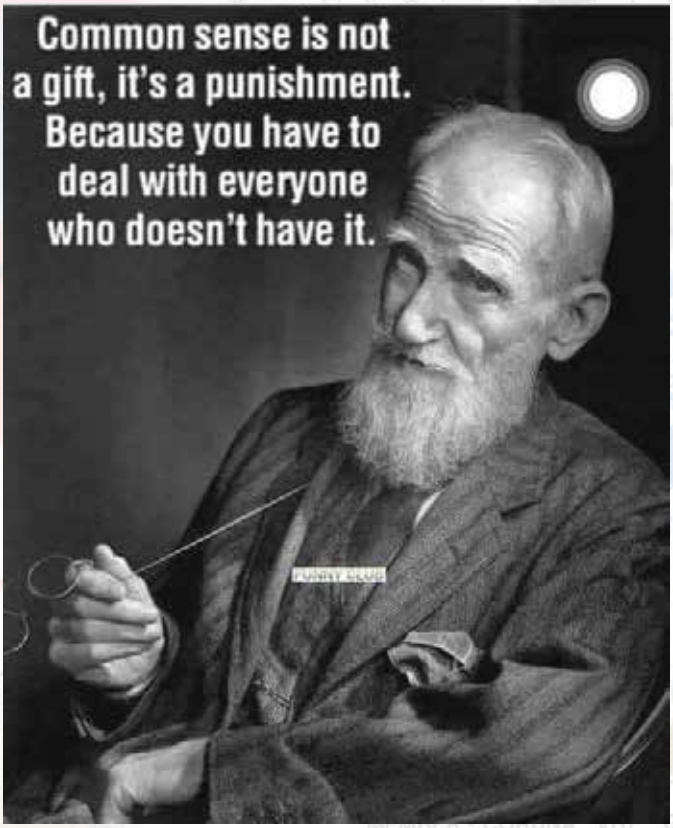
Feb 20-Feb 22, 1900Z-2359Z, WS7G, George, WA. Columbia Basin DX Club. 14.322 7.222 3.855. Certificate & QSL. Brian Nielson, 11650 Road 1 SE, Moses Lake, WA 98837. we will be celebrating George Washington's birthday from George, Washington. cbn.homestead.com/WS7G.html

02/25/2022 | 75th Anniversary of Decommissioning USS Tennessee (BB43)

Feb 25-Feb 26, 1422Z-1422Z, W4BSF, Huntsville, TN. Big South Fork Amateur Radio Club - Scott County ARES. 14.250. Certificate & QSL. Big South Fork Amateur Radio Club, P.O. Box 5029, Oneida, TN 37841-5029. The Big South Fork Amateur Radio Club will operate live from the USS Tennessee (BB-43) museum in Huntsville TN. 75th Anniversary of Decommissioning. For spotting, QSL/certificate information and to learn more about the USS Tennessee see www.qrz.com/db/w4bsf or www.bsfarc.com

02/26/2022 | 18th Annual "Freeze Your Keys" Winter Operating Event

Feb 26, 1400Z-2200Z, W0EBB, Leavenworth, KS. Kickapoo QRP Amateur Radio Club. 14.325 14.058 7.240 7.035. QSL. Gary Auchard, 34058 16th Street, Leavenworth, KS 66048. SASE required for a QSL please. w0mna74@gmail.com

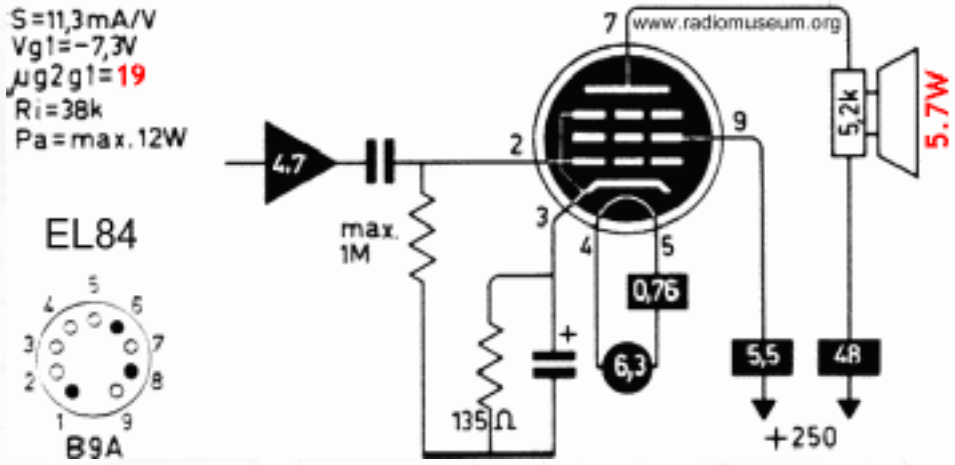


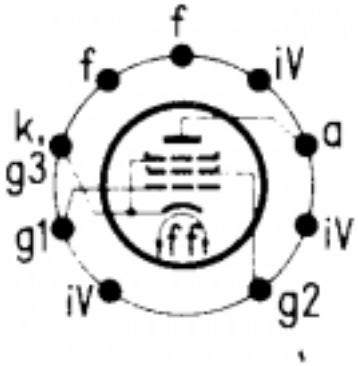
"My professor brought in a 10MB hard disk from the 1960s."

EL84 Output Pentode

Launched early 1953; Equivalent type: 6BQ5
Predecessor: EL41
Successor:~ECL86

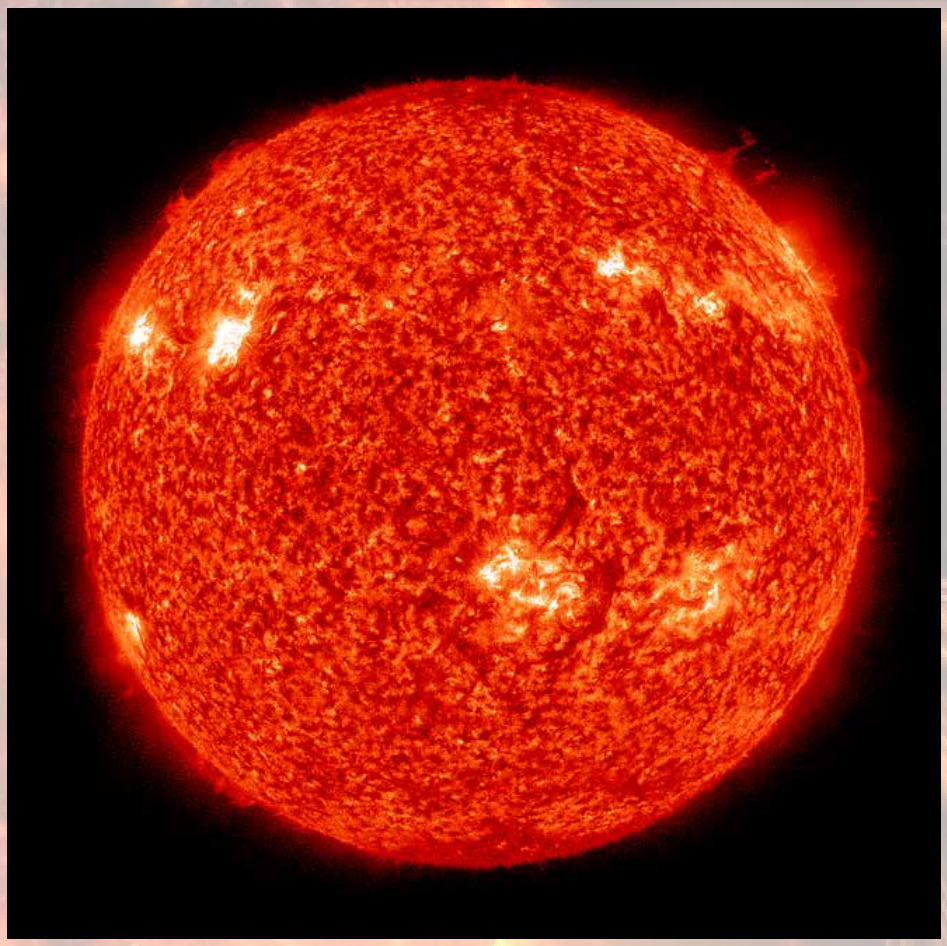
The very successful EL84 is the last development step from EL3 via EL41 to the final point of radio output pentodes. It's dissipation power was increased from 9 to 12 watts, giving an output power of 5.7 watts, which was seldom utilized. The sole later launched ECL86 may not be considered as a true successor as it is a multiple beam-power-tube with again only 9 Watts. [J.R.18Feb2003]
Pin 1 is sometimes internally also used as connection to grid 1 - but only for mechanical reasons. "iV" indicates always that such a pin should not be used at all.





No 20

K7RA Solar Update



Tad Cook, K7RA, Seattle, reports: A new sunspot group appeared on January 20 and another on January 24, followed by two more on January 25 and one more on January 26. But, overall solar activity declined from the previous week, January 13 – 19. Average daily sunspot number dropped from 94.4 to 39.6, and average daily solar flux went from 112 to 97.6.

On January 27 the daily sunspot number was 85, much higher than the average of 39.6 of the previous 7 days — always a good signal for increasing activity.

Predicted solar flux is 105 on January 28 – February 4; 108 on February 5 – 6; 110 on February 7 – 8; 108 on February 9 – 10; 106, 105, 103, 101, 100, and 95 on February 11 – 16; 92 on February 17 – 18; 90 on February 19 – 21; 88, 87, 92, and 94 on February 22 – 25; 96 on February 26 – 28; 98 and 100 on March 1 – 2; 105 on March 3 – 4; then 110 on March 5, and 108 on March 6 – 7.

Predicted planetary A index is 5, 12, and 10 on January 28 – 30; 5 on January 31 – February 3; 15 and 10 on February 4 – 5; 5 on February 6 – 9; 12, 15, and 12 on February 10 – 12; 5 on February 13 – 19; 8 on February 20 – 23; 5, 12, and 10 on February 24 – 26; 5 on February 27 – March 2; then 15 and 10 on March 3 – 4, and 5 on March 5 – 8.

Here's the "Weekly Commentary on the Sun, the Magnetosphere, and the Earth's Ionosphere — January 27, 2022," from F.K. Janda, OK1HH:

Since the end of last November, fluctuations in the level of solar activity within the 27-day periodicity have been more regular, which contributes to the success of the forecasts. This also applies to the occurrence of coronal holes, so predictions of Earth's magnetic field activity are also more accurate (including the next recurrent geomagnetic disturbance, which we expect on or about February 4). The overall level of solar activity is rising faster than long-term forecasts suggest, so it can be assumed that the maximum of the current 11-year cycle will be higher than the previous one.

The geomagnetic activity summary:

Friday, January 28, we expect quiet conditions. Then, starting Saturday, January 29, we expect an unsettled – to – active period ending by January 31. At the start of February, we expect quiet conditions until Thursday, February 3. Around February 3 – 4, we expect a new active episode, which could reach a minor storm level. — Tomas Bayer, RWC Prague, Institute of Geophysics of the ASCR, Prague, Department of Geomagnetism, Budkov Observatory.

Official results of the Pa QSO party held in 2021 at Bill Carpenter's QTH

Subject: PA QSO Party Rescore Report

Thank you for submitting a log in the 2021 PA QSO Party.

Below you will find the PA QSO party rescore report for N3IS in CAR.

Contact us at info@paqso.org with questions regarding your final score.

PA QSO Party Association

This file provides the output of the log checking process for the PA QSO Party.

Software Revision 1.0 11/10/2021 - K3CT

****
Entry Category: In State Multi Op High Power

QSO points: 265
Mults (includes DX, EPA, WPA): 92
Bonus Station QSO Points: 400
Power Multiplier: 1
QSO Points * Mults * PwrMult: 24380
Final Score: 24780
Error Percentage: 4.91
****

Number of EPA QSOs: 105
Number of WPA QSOs: 66

Dupe QSOs = 1
QSOs with logging errors = 19

Total non-dupe CW QSOs = 0
Total non-dupe Phone QSOs = 265
Total non-dupe valid QSOs = 265
Total QSO points = 265

Number of valid County mults: 60
County mults:
ADA ALL ARM BEA BED BER BLA BRA BUT BUX CAR CEN CHE CLE CLI CMB COL CRA CUM DAU DCO ELK ERI FAY FUL GRE HUN INN JUN LAC LAN LAW LEB LEH LUZ LYC MCK MER MGY MIF MOE MTR NHA PER PHI PIK POT SCH SNY SOM SUL TIO UNI VEN WAR WAS WAY WES WYO YOR

Missed County mults:
CLA CRN FOR FRA JEF NUM SUS

Number of valid Section mults, includes EPA & WPA: 31
Section mults:
CT DE EMA ENY EPA GA GTA IL KY MDC ME MI NC NFL NH NLI NNJ OH ONE ONN ONS RI SC SNJ TN
VA VT WMA WNY WPA WV

Missed Section mults:
AB AK AL AR AZ BC CO EB EWA IA ID IN KS LA LAX MAR MB MN MO MS
MT ND NE NL NM NNY NT NTX NV OK OR ORG PAC PE PR QC SB SCV SD SDG
SF SFL SJV SK STX SV UT VI WCF WI WTX WWA WY

Dx Mult: 1

Total number of Mults (includes DX, EPA, WPA): 92

****
QSO Analysis Section
****
Each QSO was evaluated and assigned one or more tags. The table below describes each tag.
0 - Omitted, the station callsign has changed in the QSO records, expecting N3IS.
1 - Omitted, the frequency is missing.
2 - Omitted, QSO logged outside of the QSO party GMT date/time.
3 - Omitted, unknown QSO mode or QSO mode does not match entry mode.
4 - Omitted, invalid exchange or missing serial number.
5 - Omitted, invalid or unknown frequency.
6 - Omitted, QSO logged with the station callsign.
7 - Omitted, invalid callsign.
8 - Omitted, invalid out of State participant logged QSO with a non-county exchange.
9 - Omitted, invalid sent section exchange.
33 - Omitted, QSO mode does not match entry mode.
A - Information, the header callsign does not match the sent callsign.
E - Information, QSO contained a compound exchange (CTY1/CTY2) that was expanded.
G - Information, QSO exchange is valid, log not available for the logged station.
L - Information, QSO exchange is valid, log available for the logged station.
< - Information, QSO number matches the other stations log.
> - Information, QSO exchange matches the other stations log.
X - Information, QSO not found in the other station log on this band & mode.
Z - Information, QSO not found in the other station log, possibly logged with the wrong mode.
N - Information, callsign was normalized for dupe checking and exchange verification.
V - Information, modified the section exchange removing trailing / or *.
b - Zero point, the normalized station callsign equals the normalized QSO callsign.
d - Zero point, dupe QSO.
g - Zero point, QSO exchange for the logged callsign is incorrect.
l - Zero point, other station log does not contain this sent exchange.

m - Zero point, QSO exchange not found in the other stations log.
- Zero point, Incorrect serial number logged on this band & mode.
FCC - Zero point, callsign does not exist in the FCC database.
****

Zero point QSOs (logging errors): 18
Band Mode Date Time SentExch Callsign Exchange Points Tag Other Log Call & Exch(s)
40m PH 2021-10-09 1828 0028 CAR VE3HZ 0053 DX 0 l :ONS
40m PH 2021-10-09 1854 0036 CAR N3QEC 0012 BEA 0 FCC
40m PH 2021-10-09 1858 0042 CAR W3EZ 0043 MOE 0 g :W3IZ
40m PH 2021-10-09 1912 0046 CAR K3ARLR 0181 CRN 0 FCC
40m PH 2021-10-09 2004 0054 CAR K4ADQ 0098 VA 0 FCC
40m PH 2021-10-09 2004 0055 CAR KB3MT 0024 DE 0 FCC
40m PH 2021-10-09 2039 0066 CAR N3EF 0447 SOM 0 g :N3XF
40m PH 2021-10-09 2102 0080 CAR N3MV 0018 CAR 0 g :N3MAV
40m PH 2021-10-09 2125 0110 CAR WB3IKJ 0043 JUN 0 g :WB3IQJ
40m PH 2021-10-09 2154 0143 CAR K3BDQ 0099 MGY 0 g :K3BVQ
80m PH 2021-10-10 0002 0150 CAR K3BX 0156 POT 0 g :K3VX
80m PH 2021-10-10 0006 0154 CAR AB2E 0717 SNJ 0 L#> :0071
80m PH 2021-10-10 0006 0155 CAR K3VQ 0112 MGY 0 g :K3BVQ
80m PH 2021-10-10 0008 0158 CAR W3BR 0363 CUM 0 g :W0BR
40m PH 2021-10-10 1718 0234 CAR KA3EEO 0069 LUZ 0 L#> :0689
40m PH 2021-10-10 1752 0241 CAR WE3HAE 0890 ALL 0 FCC
40m PH 2021-10-10 1844 0254 CAR N3VFK 0147 IN 0 l :INN
40m PH 2021-10-10 1908 0268 CAR W3SYR 0017 AL 0 g :ALL

The following QSOs are not valid. See the tags at the end of each line for an explanation.
QSOs omitted for rescoring due to errors.
Pts Band Mode Date Time Callsign SentExch Callsign Exchange Tag
0 80m PH 2021-10-10 0008 N3IS 0157 CAR N3WR 0360 PA 4

Bonus QSOs that are included in total bonus points: 2
Band Mode Date Time SentExch Callsign Exchange Points Tag
80m PH 2021-10-09 1903 0045 CAR W3RRR 0020 LAN 1 L<>
40m PH 2021-10-10 1706 0231 CAR W3RRR 0255 LAN 1 L<>

County line stations: AA3EH N3XF N3XH W3MLJ
Number of QSOs with county line stations: 3
Band Mode Date Time SentExch Callsign Exchange Points Tag
40m PH 2021-10-09 1752 0008 CAR W3MLJ 0116 FUL 1 L<>
40m PH 2021-10-09 1847 0034 CAR N3XF 0274 SOM 1 L<>
80m PH 2021-10-10 0020 0167 CAR N3XH 0111 WAY 1 L<>

Number of Not In Log (NIL) QSOs (no QSO point deductions): 8
****** Remaining NIL QSOs ******
Band Mode Date Time SentExch Callsign Exchange Points Tag
40m PH 2021-10-09 2127 0113 CAR N3CDO 0035 NHA 1 LX
40m PH 2021-10-09 2205 0145 CAR NE3F 0361 BER 1 LX
40m PH 2021-10-09 2208 0146 CAR N3SQD 0244 NHA 1 LX
40m PH 2021-10-09 2215 0147 CAR N3LAC 0046 LYC 1 LX
40m PH 2021-10-09 2226 0148 CAR KD3D 0366 WAR 1 LX
80m PH 2021-10-10 1607 0226 CAR K3PP 0955 CAR 1 LX
15m PH 2021-10-10 1704 0228 CAR N3VZ 0796 LEH 1 LX
15m PH 2021-10-10 1704 0229 CAR NF3R 0998 MGY 1 LX

Dupe Contacts (no penalty)
Band Mode Date Time SentExch Callsign Exchange Points Tag
40m PH 2021-10-09 2049 0068 CAR N3VZ 0424 LEH 0 dL

Callsigns that were normalized.
Callsign Exch Tag

All callsigns containing '/' were normalized automatically to facilitate log checking.
The normalized callsigns are listed in a table that follows.
Pts Band Mode Date Time Callsign SentExch Callsign Exchange Tag
1 40m PH 2021-10-09 1702 N3IS 0001 CAR NS3L 0101 NHA L<>
1 40m PH 2021-10-09 1706 N3IS 0002 CAR WQ3N 0180 POT L<>
1 40m PH 2021-10-09 1712 N3IS 0003 CAR W3GH 0135 WES L<>
1 40m PH 2021-10-09 1724 N3IS 0004 CAR N3KAE 0144 WYO L<>
1 40m PH 2021-10-09 1730 N3IS 0005 CAR N3GLZ 0033 FUL L<>
1 40m PH 2021-10-09 1738 N3IS 0006 CAR KN3B 0062 LYC L<>
1 40m PH 2021-10-09 1743 N3IS 0007 CAR KW3A 0115 DCO L<>
1 40m PH 2021-10-09 1752 N3IS 0008 CAR W3MLJ 0116 FUL L<>
1 40m PH 2021-10-09 1754 N3IS 0009 CAR KC3BSA 0118 SCH L<>
1 40m PH 2021-10-09 1758 N3IS 0010 CAR KC3JAS 0215 CLE L<>
1 40m PH 2021-10-09 1800 N3IS 0011 CAR W3VV 0138 MCK L<>
1 40m PH 2021-10-09 1801 N3IS 0012 CAR K3WW 0293 BUX L<>
1 40m PH 2021-10-09 1804 N3IS 0013 CAR N3OW 0080 NHA L<>
1 40m PH 2021-10-09 1805 N3IS 0014 CAR N3AAA 0153 WAS L<>
1 40m PH 2021-10-09 1813 N3IS 0015 CAR NV3Y 0059 BUX L<>
1 40m PH 2021-10-09 1816 N3IS 0016 CAR WA3JAW 0033 CRA L<>
1 40m PH 2021-10-09 1817 N3IS 0017 CAR KA3CWR 0037 LUZ L<>
1 40m PH 2021-10-09 1817 N3IS 0018 CAR WB3EHS 0043 CHE L<>
1 40m PH 2021-10-09 1820 N3IS 0019 CAR WB2FUE 0073 NHA L<>
1 40m PH 2021-10-09 1821 N3IS 0020 CAR W3PIE 0101 FAY L<>
1 40m PH 2021-10-09 1821 N3IS 0021 CAR KB3BB 0003 BUX L<>
1 40m PH 2021-10-09 1822 N3IS 0022 CAR K3NX 0019 LYC
1 40m PH 2021-10-09 1823 N3IS 0023 CAR N3DAP 0193 LEH L<>
1 40m PH 2021-10-09 1824 N3IS 0024 CAR KM3C 0032 NHA G
1 40m PH 2021-10-09 1824 N3IS 0025 CAR N4USB 0011 NC
1 40m PH 2021-10-09 1825 N3IS 0026 CAR K3DCS 0028 ADA L<>

1 40m PH 2021-10-09 1826 N3IS 0027 CAR N3EYF 0014 BED L<>
0 40m PH 2021-10-09 1828 N3IS 0028 CAR VE3HZ 0053 DX l
1 40m PH 2021-10-09 1828 N3IS 0029 CAR WO2X 0024 NNJ L<>
1 40m PH 2021-10-09 1829 N3IS 0030 CAR K3RON 0064 MGY L<>
1 40m PH 2021-10-09 1834 N3IS 0031 CAR K3PP 0248 CAR L<>
1 40m PH 2021-10-09 1838 N3IS 0032 CAR N3ATE 0141 COL L<>
1 40m PH 2021-10-09 1839 N3IS 0033 CAR N3VZ 0264 LEH L<>
1 40m PH 2021-10-09 1847 N3IS 0034 CAR N3XF 0274 SOM L<>
1 40m PH 2021-10-09 1854 N3IS 0035 CAR N3FD 0045 MGY L<>
0 40m PH 2021-10-09 1854 N3IS 0036 CAR N3QEC 0012 BEA FCC
1 40m PH 2021-10-09 1855 N3IS 0037 CAR KB3AGZ 0092 CAR
1 40m PH 2021-10-09 1856 N3IS 0038 CAR WA3RHW 0049 SNJ L<>
1 40m PH 2021-10-09 1856 N3IS 0039 CAR KD2KEH 0016 WNY L<>
1 40m PH 2021-10-09 1857 N3IS 0040 CAR WB3JEK 0051 BED L<>
1 40m PH 2021-10-09 1857 N3IS 0041 CAR W3PPG 0039 MGY L<>
0 40m PH 2021-10-09 1858 N3IS 0042 CAR W3EZ 0043 MOE g
1 40m PH 2021-10-09 1858 N3IS 0043 CAR K3TD 0052 NC L<>
1 40m PH 2021-10-09 1859 N3IS 0044 CAR W3DQS 0003 NC L<>
1 80m PH 2021-10-09 1903 N3IS 0045 CAR W3RRR 0020 LAN L<>
0 40m PH 2021-10-09 1912 N3IS 0046 CAR K3ARLR 0181 CRN FCC
1 15m PH 2021-10-09 1923 N3IS 0047 CAR OM2VL 0063 DX L<>
1 40m PH 2021-10-09 1954 N3IS 0048 CAR ND3L 0237 CMB L<>
1 40m PH 2021-10-09 1956 N3IS 0049 CAR VE3SVQ 0003 ONE
1 40m PH 2021-10-09 1957 N3IS 0050 CAR K3GTX 0057 BEA G
1 40m PH 2021-10-09 1958 N3IS 0051 CAR WA2JQK 0099 ENY L<>
1 40m PH 2021-10-09 2002 N3IS 0052 CAR VE3VGJ 0001 ONE
1 40m PH 2021-10-09 2003 N3IS 0053 CAR NE8P 0094 MI L<>
0 40m PH 2021-10-09 2004 N3IS 0054 CAR K4ADQ 0098 VA FCC
0 40m PH 2021-10-09 2004 N3IS 0055 CAR KB3MT 0024 DE FCC
1 40m PH 2021-10-09 2004 N3IS 0056 CAR N3MON 0025 BLA
1 40m PH 2021-10-09 2018 N3IS 0057 CAR W1AUV 0069 WMA L<>
1 40m PH 2021-10-09 2018 N3IS 0058 CAR KB3IAC 0037 WAS L<>
1 40m PH 2021-10-09 2020 N3IS 0059 CAR N3UPD 0006 MER
1 40m PH 2021-10-09 2020 N3IS 0060 CAR W3FCT 0017 LAN G
1 40m PH 2021-10-09 2021 N3IS 0061 CAR WB3EFQ 0006 BLA G
1 40m PH 2021-10-09 2021 N3IS 0062 CAR W3NV 0064 CLE L<>
1 40m PH 2021-10-09 2026 N3IS 0063 CAR WA2MCR 0106 ENY L<>
1 40m PH 2021-10-09 2030 N3IS 0064 CAR W3PRL 0226 WES L<>
1 40m PH 2021-10-09 2032 N3IS 0065 CAR K3TEF 0203 YOR L<>
0 40m PH 2021-10-09 2039 N3IS 0066 CAR N3EF 0447 SOM g
1 40m PH 2021-10-09 2040 N3IS 0067 CAR W3CG 0551 ERI L<>
0 40m PH 2021-10-09 2049 N3IS 0068 CAR N3VZ 0424 LEH dL
1 40m PH 2021-10-09 2051 N3IS 0069 CAR N2CU 0211 VEN L<>
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1 40m PH 2021-10-09 2056 N3IS 0073 CAR W3SLW 0006 YOR
1 40m PH 2021-10-09 2056 N3IS 0074 CAR WB3KLE 0059 HUN
1 40m PH 2021-10-09 2057 N3IS 0075 CAR KI4LUI 0001 VA
1 40m PH 2021-10-09 2058 N3IS 0076 CAR W2IOC 0023 VT

1 40m PH 2021-10-09 2059 N3IS 0077 CAR KB3MBP 0014 WAY
1 40m PH 2021-10-09 2100 N3IS 0078 CAR WA8KAN 0072 WV L<>
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0 40m PH 2021-10-09 2102 N3IS 0080 CAR N3MV 0018 CAR g
1 40m PH 2021-10-09 2102 N3IS 0081 CAR AC3LZ 0026 DE L<>
1 40m PH 2021-10-09 2103 N3IS 0082 CAR N3BLS 0071 SOM L<>
1 40m PH 2021-10-09 2104 N3IS 0083 CAR W1YSM 0017 CT
1 40m PH 2021-10-09 2105 N3IS 0084 CAR K3EFS 0108 CAR L<>
1 40m PH 2021-10-09 2105 N3IS 0085 CAR N3XE 0076 WAS
1 40m PH 2021-10-09 2106 N3IS 0086 CAR KI4BXU 0060 WES L<>
1 40m PH 2021-10-09 2106 N3IS 0087 CAR WB3AFS 0073 VEN
1 40m PH 2021-10-09 2107 N3IS 0088 CAR KB3RKM 0014 CUM L<>
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1 40m PH 2021-10-09 2108 N3IS 0090 CAR N2AAX 0026 NNJ
1 40m PH 2021-10-09 2109 N3IS 0091 CAR N3NTJ 0299 LAN L<>
1 40m PH 2021-10-09 2110 N3IS 0092 CAR W3LP 0098 TIO L<>
1 40m PH 2021-10-09 2110 N3IS 0093 CAR KB3PC 0010 MGY
1 40m PH 2021-10-09 2111 N3IS 0094 CAR N3RW 0016 BUX G
1 40m PH 2021-10-09 2112 N3IS 0095 CAR KD8LHR 0003 OH
1 40m PH 2021-10-09 2112 N3IS 0096 CAR KB3YRC 0003 DAU L<>
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1 40m PH 2021-10-09 2117 N3IS 0099 CAR KB3VS 0182 LUZ L<>
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1 40m PH 2021-10-09 2124 N3IS 0107 CAR AA1SU 0008 VT L<>
1 40m PH 2021-10-09 2124 N3IS 0108 CAR K3XO 0001 WV
1 40m PH 2021-10-09 2125 N3IS 0109 CAR K4QQG 0039 SC L<>
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1 40m PH 2021-10-09 2126 N3IS 0111 CAR N1IQC 0060 NH G
1 40m PH 2021-10-09 2127 N3IS 0112 CAR KD3TB 0297 BUX L<>
1 40m PH 2021-10-09 2127 N3IS 0113 CAR N3CDO 0035 NHA LX
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1 40m PH 2021-10-09 2128 N3IS 0115 CAR K3NM 0191 MOE L<>
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1 40m PH 2021-10-09 2132 N3IS 0120 CAR KB1RVU 0001 CT L<>
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1 40m PH 2021-10-09 2138 N3IS 0128 CAR W1MBF 0004 RI
1 40m PH 2021-10-09 2139 N3IS 0129 CAR OM2VL 0122 DX L<>
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1 40m PH 2021-10-09 2142 N3IS 0131 CAR WA2CCN 0115 WAY L<>
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1 40m PH 2021-10-09 2152 N3IS 0142 CAR N1ADX 0018 VT L<>
0 40m PH 2021-10-09 2154 N3IS 0143 CAR K3BDQ 0099 MGY g
1 40m PH 2021-10-09 2155 N3IS 0144 CAR WA3HVR 0002 LEH
1 40m PH 2021-10-09 2205 N3IS 0145 CAR NE3F 0361 BER LX
1 40m PH 2021-10-09 2208 N3IS 0146 CAR N3SQD 0244 NHA LX
1 40m PH 2021-10-09 2215 N3IS 0147 CAR N3LAC 0046 LYC LX
1 40m PH 2021-10-09 2226 N3IS 0148 CAR KD3D 0366 WAR LX
1 80m PH 2021-10-10 0001 N3IS 0149 CAR K3URT 0226 DAU L<>
0 80m PH 2021-10-10 0002 N3IS 0150 CAR K3BX 0156 POT g
1 80m PH 2021-10-10 0003 N3IS 0151 CAR W1AUV 0116 WMA L<>
1 80m PH 2021-10-10 0004 N3IS 0152 CAR WA2MCR 0185 ENY L<>
1 80m PH 2021-10-10 0005 N3IS 0153 CAR WB3JEK 0118 BED L<>
0 80m PH 2021-10-10 0006 N3IS 0154 CAR AB2E 0717 SNJ L#>
0 80m PH 2021-10-10 0006 N3IS 0155 CAR K3VQ 0112 MGY g
1 80m PH 2021-10-10 0007 N3IS 0156 CAR W3LP 0119 TIO L<>
0 80m PH 2021-10-10 0008 N3IS 0158 CAR W3BR 0363 CUM g
1 80m PH 2021-10-10 0009 N3IS 0159 CAR NN2NN 0082 WNY L<>
1 80m PH 2021-10-10 0010 N3IS 0160 CAR W3LL 0074 MDC L<>
1 80m PH 2021-10-10 0011 N3IS 0161 CAR N3QXC 0164 BEA L<>
1 80m PH 2021-10-10 0012 N3IS 0162 CAR N3HPL 0068 MCK L<>
1 80m PH 2021-10-10 0015 N3IS 0163 CAR K3WJV 0684 TIO L<>
1 80m PH 2021-10-10 0016 N3IS 0164 CAR KD2HZI 0007 WNY G
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1 80m PH 2021-10-10 0019 N3IS 0166 CAR N3RJ 0648 LEB L<>
1 80m PH 2021-10-10 0020 N3IS 0167 CAR N3XH 0111 WAY L<>
1 80m PH 2021-10-10 0021 N3IS 0168 CAR W3KWH 0033 ALL L<>
1 80m PH 2021-10-10 0022 N3IS 0169 CAR N3ZK 0143 LAW L<>
1 80m PH 2021-10-10 0024 N3IS 0170 CAR WB2LPC 0024 TIO L<>
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1 80m PH 2021-10-10 0027 N3IS 0173 CAR W3CRS 0047 LAN L<>
1 80m PH 2021-10-10 0028 N3IS 0174 CAR WB2PMC 0015 SNJ
1 80m PH 2021-10-10 0029 N3IS 0175 CAR KD3XM 0097 ARM L<>
1 80m PH 2021-10-10 0031 N3IS 0176 CAR W3Y 0138 WES G
1 80m PH 2021-10-10 0032 N3IS 0177 CAR N1FR 0012 ME

1 80m PH 2021-10-10 0033 N3IS 0178 CAR W3SGJ 0169 BEA L<>
1 80m PH 2021-10-10 0034 N3IS 0179 CAR KZ3P 0132 YOR L<>
1 80m PH 2021-10-10 0034 N3IS 0180 CAR KA2K 0140 SNJ L<>
1 80m PH 2021-10-10 0035 N3IS 0181 CAR W3AYT 0218 PHI L<>
1 80m PH 2021-10-10 0036 N3IS 0182 CAR KB3CMT 0170 GRE L<>
1 80m PH 2021-10-10 0037 N3IS 0183 CAR N8OZY 0044 WV L<>
1 80m PH 2021-10-10 0038 N3IS 0184 CAR AC3LZ 0107 DE L<>
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1 80m PH 2021-10-10 0039 N3IS 0186 CAR NT3I 0032 BRA L<>
1 80m PH 2021-10-10 0040 N3IS 0187 CAR K1JB 0126 ME L<>
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1 80m PH 2021-10-10 0042 N3IS 0189 CAR W4KW 0049 TN L<>
1 80m PH 2021-10-10 0042 N3IS 0190 CAR K3NM 0258 MOE L<>
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1 80m PH 2021-10-10 0043 N3IS 0192 CAR AA3LX 0254 BUT G
1 80m PH 2021-10-10 0044 N3IS 0193 CAR W2XT 0088 SNJ L<>
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1 80m PH 2021-10-10 0046 N3IS 0195 CAR K4SBZ 0032 NFL L<>
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1 80m PH 2021-10-10 0048 N3IS 0197 CAR N1JTK 0006 CT
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1 80m PH 2021-10-10 0052 N3IS 0203 CAR K3GWK 0023 GA
1 80m PH 2021-10-10 0052 N3IS 0204 CAR AC3EU 0065 LYC L<>
1 80m PH 2021-10-10 0053 N3IS 0205 CAR WB3AFS 0281 VEN
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1 80m PH 2021-10-10 0128 N3IS 0208 CAR N3WH 0128 BUT L<>
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1 80m PH 2021-10-10 0132 N3IS 0211 CAR N3OAW 0009 LAN L<>
1 80m PH 2021-10-10 0141 N3IS 0212 CAR KD3MC 0108 SNY L<>
1 80m PH 2021-10-10 0142 N3IS 0213 CAR W7LG 0374 MIF L<>
1 80m PH 2021-10-10 0143 N3IS 0214 CAR N3DAP 0605 LEH L<>
1 80m PH 2021-10-10 0144 N3IS 0215 CAR WM3PEN 0210 PHI L<>
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1 80m PH 2021-10-10 0146 N3IS 0217 CAR NV3C 0079 ARM L<>
1 80m PH 2021-10-10 0147 N3IS 0218 CAR VE3KMQ 0030 GTA G
1 80m PH 2021-10-10 0148 N3IS 0219 CAR KB8TYJ 0128 MI L<>
1 80m PH 2021-10-10 0149 N3IS 0220 CAR K3DCS 0078 ADA L<>
1 80m PH 2021-10-10 0151 N3IS 0221 CAR KC3LEP 0056 INN L<>
1 80m PH 2021-10-10 0152 N3IS 0222 CAR N3CDO 0075 NHA L<>
1 80m PH 2021-10-10 0153 N3IS 0223 CAR K3CY 0452 JUN L<>
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1 80m PH 2021-10-10 1607 N3IS 0226 CAR K3PP 0955 CAR LX
1 15m PH 2021-10-10 1700 N3IS 0227 CAR W3EDP 0033 CEN L

1 15m PH 2021-10-10 1704 N3IS 0228 CAR N3VZ 0796 LEH LX
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1 40m PH 2021-10-10 1706 N3IS 0231 CAR W3RRR 0255 LAN L<>
1 40m PH 2021-10-10 1713 N3IS 0232 CAR N3KCR 0328 UNI L<>
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0 40m PH 2021-10-10 1718 N3IS 0234 CAR KA3EEO 0069 LUZ L#>
1 40m PH 2021-10-10 1720 N3IS 0235 CAR K3KU 0104 MDC L<>
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1 40m PH 2021-10-10 1802 N3IS 0244 CAR W3ZR 0279 SUL L<>
1 40m PH 2021-10-10 1805 N3IS 0245 CAR W3TRW 0296 ADA L<>
1 40m PH 2021-10-10 1835 N3IS 0246 CAR W2MSA 0108 NNJ L<>
1 40m PH 2021-10-10 1838 N3IS 0247 CAR W3ITH 0025 BER G
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1 40m PH 2021-10-10 1855 N3IS 0259 CAR AA3T 0071 PER G
1 40m PH 2021-10-10 1858 N3IS 0260 CAR K3YDX 0053 NC L<>
1 40m PH 2021-10-10 1900 N3IS 0261 CAR KC3JNW 0360 COL L<>
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1 40m PH 2021-10-10 1904 N3IS 0264 CAR KA3FZN 0110 ERI L<>
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1 40m PH 2021-10-10 1907 N3IS 0267 CAR KB4CAU 0006 VA
0 40m PH 2021-10-10 1908 N3IS 0268 CAR W3SYR 0017 AL g
1 40m PH 2021-10-10 1909 N3IS 0269 CAR W9TCV 0116 VA L<>
1 40m PH 2021-10-10 1911 N3IS 0270 CAR WA3EEC 0009 WMA L<>
1 40m PH 2021-10-10 1913 N3IS 0271 CAR VA3DKL 0023 ONS L<>
1 40m PH 2021-10-10 1914 N3IS 0272 CAR NY6DX 0188 NLI L<>
1 40m PH 2021-10-10 1915 N3IS 0273 CAR WM3PEN 0337 PHI L<>
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1 40m PH 2021-10-10 1919 N3IS 0276 CAR N1TL 0090 VA L<>
1 40m PH 2021-10-10 1919 N3IS 0277 CAR N3SD 0985 BEA L<>

1 40m PH 2021-10-10 1920 N3IS 0278 CAR N2EM 0107 BUT L<>
1 40m PH 2021-10-10 1921 N3IS 0279 CAR KC1KVY 0009 EMA
1 40m PH 2021-10-10 1922 N3IS 0280 CAR W3KWH 0197 ALL L<>
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1 40m PH 2021-10-10 1926 N3IS 0282 CAR NR3K 0266 TIO L<>
1 40m PH 2021-10-10 1927 N3IS 0283 CAR NC3O 0049 CUM L<>
1 40m PH 2021-10-10 1929 N3IS 0284 CAR W1QK 0262 CT L<>
1 40m PH 2021-10-10 1929 N3IS 0285 CAR W1FM 0225 EMA L<>

EPARA SSTV Corner

This month's collection of 20-meter SSTV Images gathered from around North America...

Interested in learning how to do SSTV with your HF radio? Contact Alex at KD2FTA@arrl.net

73 for now KD2FTA

Launch of a Wooden Satellite Still Pending

01/13/2022

Two spacecraft comprised of wood or using wooden framing are hoping to launch this year and next. One will carry an amateur radio payload.

WISA Woodsat, a Finnish spacecraft that planned to include an amateur radio payload, was forced to postpone its announced launch target from 2021 to 2022 after the International Amateur Radio Union (IARU) Amateur Satellite Frequency Coordination system turned away its request to use amateur radio frequencies.

"I regret to inform you that IARU is not in a position to support the WISA Woodsat Coordination request," the coordinator said. "The main reason is that the primary mission doesn't seem to be an amateur mission."

As announced last year, WISA Woodsat was designed to accommodate multiple missions — from materials science, space education, and awareness to promoting and facilitating amateur radio communication with and via satellites. No transponder was on board, but the satellite's sponsors said they had the support of Finland's IARU member-society, SRAL, to use amateur radio frequencies. They are now reworking the spacecraft to use commercial radio frequencies.

"To our great disappointment, we can't serve the radio amateur community with the LoRa-repeater mission as we had hoped and planned. We will continue to share the pictures and data online, but the technical aspect has been diminished due to this decision," said WISA Woodsat's Chief Engineer Samuli Nyman of Arctic Astronautics.

Meanwhile, LignoSat, a 1U-sized CubeSat with an outside structure mainly composed of wood, has applied for IARU frequency coordination and hopes to launch from the ISS in 2023. Built by students at Japan's Kyoto University, LignoSat includes a unique amateur radio payload but not a transponder.

The LignoSat application for IARU Satellite Frequency Coordination in December said the CubeSat would carry amateur radio equipment that will extract call signs of amateur radio stations from uplinked FM packet signals and respond to them via the CW downlink and the sender's call signs to convey thank you messages. The plan proposes UHF downlinks for CW and FM.

The satellite's development team, comprised of Kyoto University and Sumitomo Forestry Company, said it's aiming to harness the environmental friendliness and the economy of wood in spacecraft development. They say a satellite with a wooden exterior would burn up upon re-entering Earth's atmosphere at the end of its mission, lessening its burden on the environment. The wooden framework also will permit the satellite's antennas to be inside the spacecraft. A plan is under way to use an experimental apparatus on the International Space Station to hold wooden sheets of varying hardness, taken from several tree species, attached. These would remain exposed to the space environment for about 9 months to determine their deterioration.

The team is headed by Japan Aerospace Exploration Agency (JAXA) astronaut Tako Doi. Now a Kyoto University professor, Doi was the first JAXA astronaut to take part in spacewalks from the shuttle Columbia in 1997. He said the concept, if successful, could lead the way to "allowing even children who are interested in space to make a satellite."

LignoSat would be deployed from the ISS in July 2023. — Thanks to Joey Ferguson, W4JF, and Japan Times.

Antenna Theory - Helical

Helical antenna is an example of wire antenna and itself forms the shape of a helix. This is a broadband VHF and UHF antenna.

Frequency Range

The frequency range of operation of helical antenna is around 30MHz to 3GHz. This antenna works in VHF and UHF ranges.

Construction & Working of Helical Antenna

Helical antenna or helix antenna is the antenna in which the conducting wire is wound in helical shape and connected to the ground plate with a feeder line. It is the simplest antenna, which provides circularly polarized waves. It is used in extra-terrestrial communications in which satellite relays etc., are involved.

The side image shows a helical antenna system, which is used for satellite communications. These antennas require wider outdoor space.

It consists of a helix of thick copper wire or tubing wound in the shape of a screw thread used as an antenna in conjunction with a flat metal plate called a ground plate. One end of the helix is connected to the center conductor of the cable and the outer conductor is connected to the ground plate.

This image of a helix antenna detailing the antenna parts is shown above.

The radiation of helical antenna depends on the diameter of helix, the turn spacing and the pitch angle.

Pitch angle is the angle between a line tangent to the helix wire and plane normal to the helix axis.

$\alpha = \tan{-1}(S\pi D)$

where,

D is the diameter of helix.

S is the turn spacing (center to center).

α is the pitch angle.

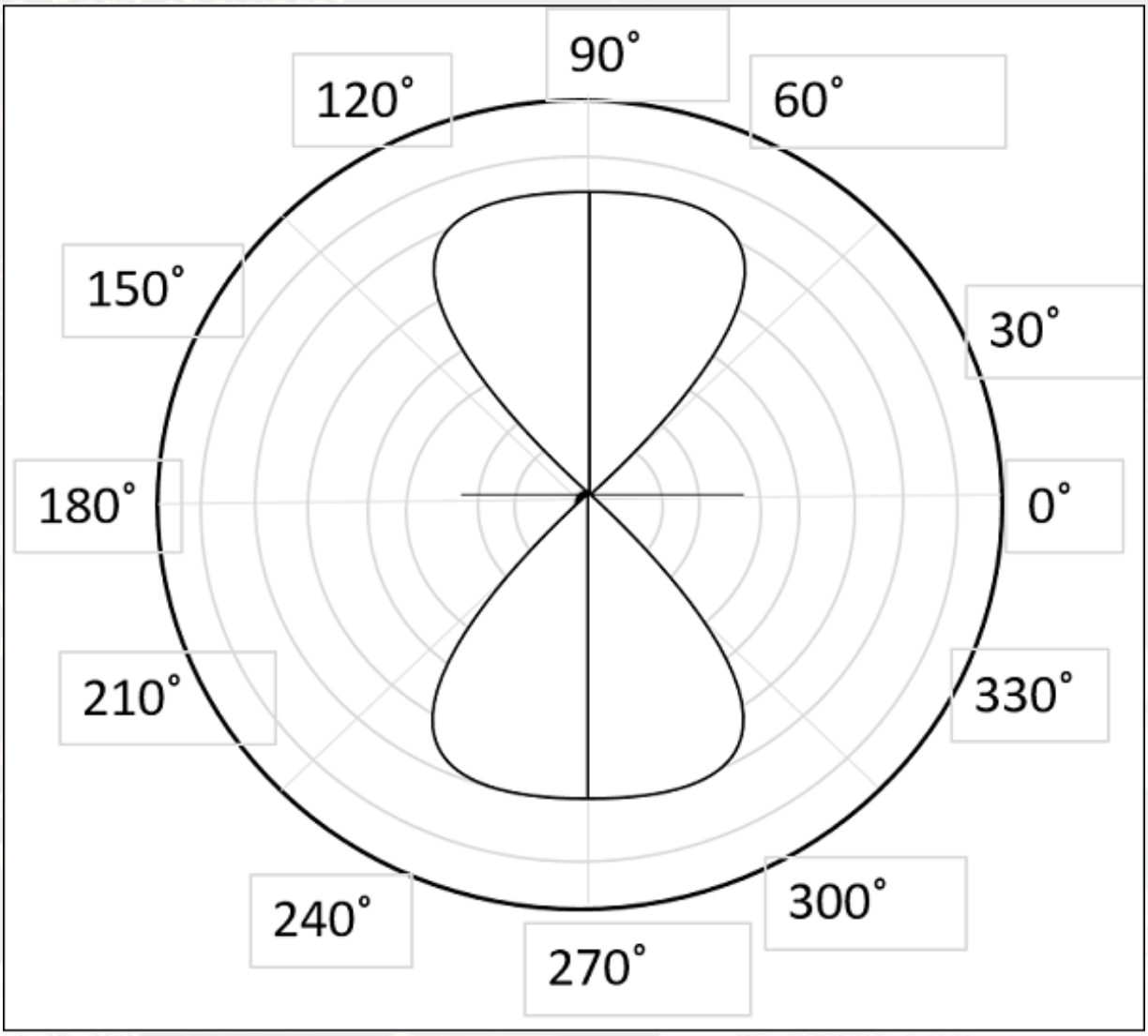
Modes of Operation

The predominant modes of operation of a helical antenna are –

Normal or perpendicular mode of radiation.; Axial or end-fire or beam mode of radiation.

In normal mode of radiation, the radiation field is normal to the helix axis. The radiated waves are circularly polarized. This mode of radiation is obtained if the dimensions of helix are small compared to the wavelength. The radiation pattern of this helical antenna is a combination of short dipole and loop antenna.

Normal Mode



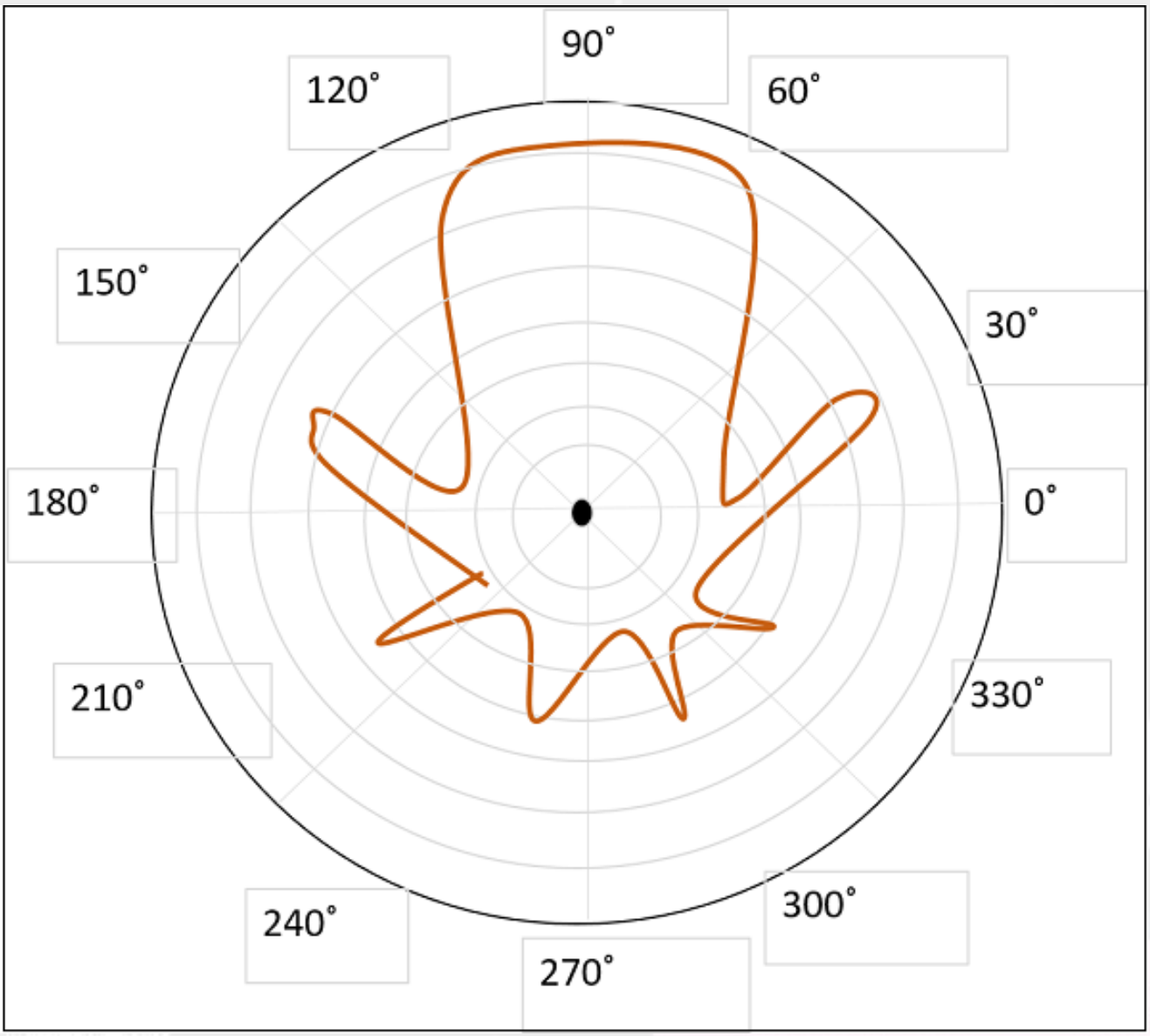
The above figure shows the radiation pattern for normal mode of radiation in helical antenna.

It depends upon the values of diameter of helix, D and its turn spacing, S. Drawbacks of this mode of operation are low radiation efficiency and narrow bandwidth. Hence, it is hardly used.

Axial mode

In axial mode of radiation, the radiation is in the end-fire direction along the helical axis and the waves are circularly or nearly circularly polarized. This mode of operation is obtained by raising the circumference to the order of one wavelength (λ) and spacing of approximately λ/4. The radiation pattern is broad and directional along the axial beam producing minor lobes at oblique angles.

Axial Mode



The figure shows the radiation pattern for axial mode of radiation in helical antenna.

If this antenna is designed for right-handed circularly polarized waves, then it will not receive left-handed circularly polarized waves and vice versa. This mode of operation is generated with great ease and is more practically used.

Advantages

The following are the advantages of Helical antenna –

- Simple design
- Highest directivity
- Wider bandwidth
- Can achieve circular polarization
- Can be used at HF & VHF bands also

Disadvantages

The following are the disadvantages of Helical antenna –

- Antenna is larger and requires more space
- Efficiency decreases with number of turns

Applications

The following are the applications of Helical antenna –

- A single helical antenna or its array is used to transmit and receive VHF signals
- Frequently used for satellite and space probe communications
- Used for telemetry links with ballastic missiles and satellites at Earth stations
- Used to establish communications between the moon and the Earth
- Applications in radio astronomy

MEMBERSHIP APPLICATION

E P A R A

Eastern Pennsylvania Amateur Radio Association

Address: PO Box 521, Sciota, PA 18354
Email: N3IS@qsl.net
Website: www.qsl.net/n3is

Date: _____

Name: _____ **Callsign** _____

License: Novice Technician General Advanced Extra

Address: _____

City: _____ **State:** _____ **Zip:** _____

Home Phone: _____

Cell Phone: _____

Email: _____

* **Note:** We do not publicize your phone or email information.

ARRL Member: _____ **Skywarn Spotter:** _____ **ARES/RACES Member:** _____ **VE:** _____

Interests:
DX _____ Contest _____ CW _____ QRP _____ Digital Modes_____ Antique Radio Equipment _____
Building Antennas _____ Electronic Repairs _____ Elmering _____ Kit Building _____ EmComm: ____

Others: _____

How did you get interested in Ham Radio?

_____

Please list any relevant qualifications or assets you have or are willing to share/contribute to the club.

Use reverse side if needed:

_____

_____

_____

Sponsored or Reviewed by: _____ **Callsign:** _____

Membership Rates,

Membership: **$20.00** per year Spouse: **$10.00** per year
Full time Student: **$15.00** per year Senior:(Over 62 years of Age): **$15.00** per year