# ST JOHN VALLEY AMATEUR RADIO ASSOCIATION

### WHATS IN THIS ARTICLE:

- ♦ Monthly Meeting Review
- ♦ What's New in Amateur
- ♦ Club or Member Projects
- Reader Submission
- Upcoming Events
- Quick Tips
- ♦ Swap Buy Sell
- ♦ Random Stuff
- ♦ Info / Links



Watch for the Tesla coil to see where you

can contribute to the newsletter!

### **Mailing Address**

**SJVARA** 

Attn: Travis Devoe 3191 Aroostook Rd Eagle Lake. ME 04739 MSJV



### SJVARA Monthly Newsletter

The purpose of this publication is to keep you updated on club events and news as well as everything new in ham radio. It includes thoughts and ideas from our club meetings and events as well as new tech and news in the amateur radio community.

If your not already subscribed, email <a href="mailto:sjvarafk@gmail.com">sjvarafk@gmail.com</a> Attn: newsletter





3D Printer is getting a workout

To submit a photo, email it to sivarafk@gmail.com Attn: photo of the month







# Monthly Meeting Review

The next IN PERSON meeting for the SJVARA will be Saturday June 5 at 14:00 EST. This will be held at the Northern Door Inn, across from Customs in Fort Kent.

Weather permitting we will hold the meeting outside on the picnic tables. If the weather does not permit, we will hold the meeting in the basement "conference room".

If the weather is nice burgers and hot-dogs on the grill will be provided by the club. Chips and macaroni salad will also be provided by the club, the only thing you have to bring is your beverage of choice. (If it's raining we will figure something else out, maybe pizza.)

During this meeting please practice social distancing, and wear a mask if you feel it is necessary. Masks are <u>not</u> mandatory.

Along with other topics we will collect dues for the year (\$20), and hold an election for officials. If you would like to volunteer for a position, please contact myself (kb1zpp) or Derrick (kw1a), contact info can be found on the last page of this newsletter. We will also be discussing equipment maintenance and summer projects.

Anyone and everyone is free to attend!

### What's New With Amateur Radio

#### Recognition for Young Operators in Ham Radio Contests

ARU Region 2 reports on a welcome move in North America to encourage young radio amateurs to participate in contests

The IARU Region 2 Executive Committee congratulates the National Contest Journal (NCJ) for recognizing young operators' entries for the North American QSO Party (NAQP) CW and SSB contests in August 2021.

The 3830scores.com site will add a YOTA checkbox for their identification.

IARU R2 strongly believes that encouraging young operators to actively participate in various amateur radio activities is key for the future of amateur radio.

IARU R2 sponsors a regular bilingual English/Spanish session for young radio amateurs across the Americas. These sessions are an opportunity to share their experiences in the many possible amateur activities to attract new amateurs and increase the number of active young amateurs. This Group meets virtually twice per month and is open to all that wish to participate. For more information, please contact the IARU R2 Youth Liaison, Sterling Mann NOSSC, at youth@iaru-r2.org

IARU Region 2 - https://iaru-r2.org/

#### New 122 GHz DX Record.

UK amateurs continue to create new DX records on the 122GHz millimeter-wave band. On the 7th of April, using barely one milliwatt, a new all-time UK record was set. The contact was between Roger, G8CUB and Chris, G0FDZ, from Danbury Hill in Essex to the Isle of Sheppey, a distance of nearly 36km. This is all the more remarkable given the very low power and high atmospheric loss due to an oxygen resonance that affects this particular microwave band.

Amateur Radio has a New Census!

As the amateur radio community grows and evolves, the need to better understand the preferences and expectations of amateur radio operators worldwide becomes increasingly important.

Inspired by the new licensees joining amateur radio's ranks, and the seasoned ones who continue to believe in its value, Ham Census (hamcensus.org) is inviting all hams to take part in a unique survey. The project's founders are looking forward to responses from both the United States and the rest of the globe, notably from Canadian neighbors to the north, the large Japanese and Thai ham communities, and all other operators worldwide. Questions deal with operating preferences, gear, the shack, views on regulations, clubs and associations, and importantly, about the future of amateur radio.

K3MRI, co-admin of both Ham Census and Ham Community, says: "We wanted to give operators a louder voice to better inform club leaders, associations, manufacturers and also regulators." He continues, "we all want the amateur radio community to grow organically and collaboratively, and for that we need to know what operators are thinking." K3MRI and his team are counting on operators, clubs, organizations and even ham-related businesses, to spread the word ensuring there is a large sample of respondents of all ages, all interests, and all nationalities.

Ham Census, which is divided into six parts, runs year-round delivering constantly updated results. The only caveat is that, though it is absolutely free for all to take and use, only those who complete all six parts of the Census have access to the full results.

Importantly, after completing it, Ham Census is encouraging respondents to submit suggestions on how to improve both the questions and multiple choice answers, notably on everything that is cutting edge.

Credit for articles: ICQ Podcast www.icqpodcast.com



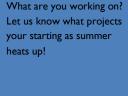




# Club / Member Projects

Last month I got a 3D printer and it has changed the game in prototyping and repair/recycling. Using a free online CAD software called TinkerCad, you can create almost anything your mind can imagine in a very short amount of time. Most of the challenges of traditional 3D modeling software have been removed and the user interface is simple and most importantly, quick. In just a few hours I had a prototype microphone designed and printing for my TS-520. Among other things I've also recycled some old lithium "flat pack" cells from a broken tablet and an with an amazon "usb power bank board", created a 7400 mAh USB battery bank. The plans for the power bank shell were found on www.thingiverse.com. -kb1zpp













To submit your project send an email to <a href="mailto:sivarafk@gmail.com">sivarafk@gmail.com</a> Attn: projects

### **Reader Submission**

### This section relies on you!

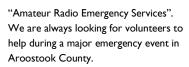
Do you have a new invention or idea you want to share?

Did you buy a new piece of gear you want to review, or just brag about?

Have a funny story or personal experience?

If you would like to put together a short write up about it, send it in!





We have a very active team in Aroostook County and we need your help!

We hope this team is never needed but should a major problem happen anywhere in Aroostook County, Ham Radio Operators will more then likely be needed. Things like major storms Winter or Summer are crippling, especially for the Elderly. Those on oxygen or electric vents in there homes are examples. We have great ambulance services but they would not be able to get the needs covered.

Things like major flooding, which happened many times, plane crashes in a community, major fires, accidents when Police, Fire and EMS radios are completely tied up, communities will need Ham Radio Operators.

Please reach out to lend a hand. Call Roy Woods at 492-7532 for more information.





If you would like to submit something, email it to sivarafk@gmail.com Attn: reader submission







## **Upcoming Events**

Field day this year is June 26 & 27, for a list of rules and 2021 waivers, check out <a href="http://www.arrl.org/field-day">http://www.arrl.org/field-day</a>



### **SJVARA** June Club Meeting

June 5 at 14:00 EST, Northern Door Inn

#### Nets in Maine

Sunday morning at 9:00 AM EST 3.940 MHz Maine Public Service Net

Sunday afternoon at 4:30 PM EST 3.940 MHz Maine Emergency Communications Net

If you know of any other nets in Maine, whether HF, VHF, UHF, digital or analog, let us know and we'll list it here!



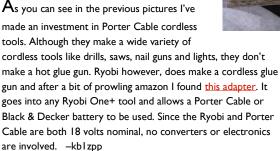
To submit an event, email the description, date, and other pertinent info to <a href="mailto:siyarafk@gmail.com">siyarafk@gmail.com</a> Attn: events

# **Quick Tips**

Need to hang your hand tools like your drill or glue gun? A piece of board and some PVC pipe is a cheap and easy way to clear some tools off the desk. I used a length of 2" ID (schedule 40) pvc pipe and cut roughly 2-1/2" long pieces. I drilled two holes in the back side of the pipe to run drywall



screws into the board. I used a step bit and drilled a 3/4" hole in the front to make it easier to get the top screw in. This larger hole allows the drill to pass through and tighten the screw into the wood.





Send Us Your
Tips & Tricks
Hacks & Mods





If you would like to submit your tips or tricks, email them to <a href="mailto:sjvarafk@gmail.com">sjvarafk@gmail.com</a> Attn: just the tip





# Swap / Buy / Sell

The SJVARA is looking for donations for their club event trailer and "go box"

Any gear you would like to donate or let us borrow would be greatly appreciated.



We need gear to fill this section! If you have anything to sell or give away, are looking for something to buy, or just looking to see what's

out there let us know!







To get your gear listed or to list what your in search of email sjvarafk@gmail.com Attn: swap buy sell

### **Random Stuff**

You'll find anything unrelated or off topic here.

Multi-tools can come in handy in a variety of situations. This pen also stores a flat and Philips screwdriver, 4 inch (10cm) ruler, and a spirit level. It comes with three ink refills and the back end has a stylus for smartphones or tablets. Amazon has many different varieties but this one can be found here.











If you would like to submit your random stuff, email it to <a href="mailto:siyarafk@gmail.com">siyarafk@gmail.com</a> Attn: uh, that's random

### A Few Words From KB6NU

#### Are you ready for the new RF exposure evaluation regulations?

On Tuesday, April 27, Dan, WIDAN, ARRL Eastern Massachusetts Section Technical Coordinator, gave a Zoom presentation on the latest FCC regulations on RF exposure evaluation. These are spelled out in FCC-1926A1 (<a href="https://www.fcc.gov/document/fcc-maintains-current-rf-exposure-safety-standards">https://www.fcc.gov/document/fcc-maintains-current-rf-exposure-safety-standards</a>), "Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields; Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies." The document is as long as the title might suggest—159 pages—but WIDAN boiled it down, focusing on what these changes mean for radio amateurs.

A recording of the presentation can be viewed by going to <a href="https://drive.google.com/drive/folders/1\_qIGZhHyMrha-ax/t87Dcu0UZu]Oot8F.">https://drive.google.com/drive/folders/1\_qIGZhHyMrha-ax/t87Dcu0UZu]Oot8F.</a>
After explaining how RF exposure can be harmful, Dan explained how the rules are changing: The biggest change, he notes, is that amateur radio's categorical exclusion has been eliminated. What this means is that now every radio amateur will have to perform an RF exposure evaluation of their stations. This now includes mobile and portable stations, including HTs, SOTA/POTA stations, and Field Day and special event stations.

He noted that you must be able to prove that your station is safe. This includes not only performing the evaluation, but also documenting these evaluations, should this data be requested by FCC personnel.

One thing that's not changing are the maximum permissible exposure (MPE) limits. These are spelled out in FCC OET Bulletin 65 (https://transition.fcc.gov/Bureaus/Engineering\_Technology/Documents/bulletins/oet65/oet65.pdf), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields." The FCC published this document in August 1997, but it's still the Bible when it comes to RF exposure. If you don't have a copy, or have never taken a look at it, you really should do so.

Be careful, though, when reading it. It contains a table (Table I on p. 21) that contains a list of output powers at various frequencies. If your station exceeded those limits, then you were required to perform an RF evaluation. Now, however, all amateurs (and other radio services, for that matter) must perform RF exposure evaluations if their <u>output power exceeds I mW.</u> We are no longer categorically excluded from performing these evaluations.

OET Bulletin 65 goes on to give guidance on how to calculate or measure exposure levels. Explaining how to do this is outside the scope of this article, but again, you'll want to refer to the bulletin for more information.

Besides the elimination of the categorical exclusion for amateur radio stations, what else is new is the dates on which amateur radio stations must perform evaluations. They are:

May 3, 2021(!!) for new and modified stations

May 3, 2023 for stations that complied under the old rules.

Having said all that, the ARRL's RF Exposure page (<a href="http://www.arrl.org/rf-exposure">http://www.arrl.org/rf-exposure</a>) has a lot of resources to help you understand this topic and perform your own RF exposure evaluations:

An RF-exposure FAQ (http://www.arrl.org/files/file/Technology/RFsafetyCommittee/RFXFAQ.pdf) to help hams understand the new rules.

"Learning to Live with RF Safety (http://www.arrl.org/files/file/protected/Group/Members/Technology/tis/info/pdf/QST\_Mar\_2009\_p70-71.pdf)," QST March 2009 pp. 70-71.

RF Safety at Field Day (http://www.arrl.org/files/file/Technology/tis/info/pdf/9906048.pdf) QST, June 1999, pp. 48-51. A case study of Field Day with NSRC in a public park

RF Exposure Station Evaluation and Exemption Worksheets (http://www.arrl.org/files/file/Technology/tis/info/pdf/rfexl\_2.pdf)

RF Exposure and You (http://www.arrl.org/files/file/Technology/RFsafetyCommittee/RF%20Exposure%20and%20You.pdf). This 8 Mbyte PDF file contains the text of the entire book by Ed Hare, W1RFI.

Chapter 5 References (http://www.arrl.org/files/file/Technology/tis/info/pdf/RF%20Exposure% 20Chapter%205.pdf) needed for filling out worksheet.

There are also links to FCC web pages with information on RF exposure.

I'm sure we'll all be hearing more about this in the days ahead. Hopefully, someone will come out with a simple way to do the modeling or make the calculations. As always, play safe. Check out Dan's website for study guides, (Tech guide is free!) ham shack gear recommendations, and a daily blog.

www.kb6nu.com









#### Info / Links

Fort Kent Repeater - 146.640- 100hz

Eagle Lake Repeater - 146.715- 100hz (temporarily offline)

Echolink Node - 733919 (or search n1sjv)

Facebook - www.facebook.com/sjvara

Website - www.sjvara.com

Merch Store - www.teespring.com/stores/sjvara

Google Drive

Exam Study Guides - www.kb6nu.com/study-guides

Flash Cards and Practice Exams - www.hamstudy.org

Online Meeting App - FreeConferenceCall.com

#### **Affiliates**

Aroostook Amateur Radio Association

www.k1fs.org

Maine Amateur Radio Foundation

www.mar.foundation

Amateur Radio Relay League

www.arrl.org

Can Am Crown

www.can-am-crown.net

Payment Links



Payment Via Snail Mail

SJVARA Attn: Carl Pelletier 22 Municipal Drive Fort Kent, ME 04743





Eagle Lake. ME 04739 **Officer Contact List** Club Email N<sub>1</sub>SJV Travis Devoe KB<sub>1</sub>ZPP **Derrick Ouellette** KW1A

as well as advancing the general interest and welfare of amateur radio in the community. Monthly meetings are held in Fort Kent but membership spans the entire valley and more.

Check out the club website or Facebook page for other info or events.

N<sub>1</sub>EVO

The SJVARA is a membership of hams with the similar interest of promoting radio knowledge

Why Become An **Amateur Radio Operator?** 

"Ham" radio is a fun, exciting hobby that allows you to talk to the world using different technologies and modes of transmission. It's also a great way to meet people in your area with the same hobbies or interests, and exchange information and experiences.



President

Vice President

Treasurer

Carl Pelletier

**Mailing Address** 

**SJVARA** 

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