

FeedPoint

ST JOHN VALLEY
AMATEUR RADIO
ASSOCIATION

**WHAT'S IN THIS
ARTICLE:**

- ◆ Monthly Meeting Review
- ◆ What's New in Amateur Radio
- ◆ 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

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 sjvarafk@gmail.com Attn: newsletter

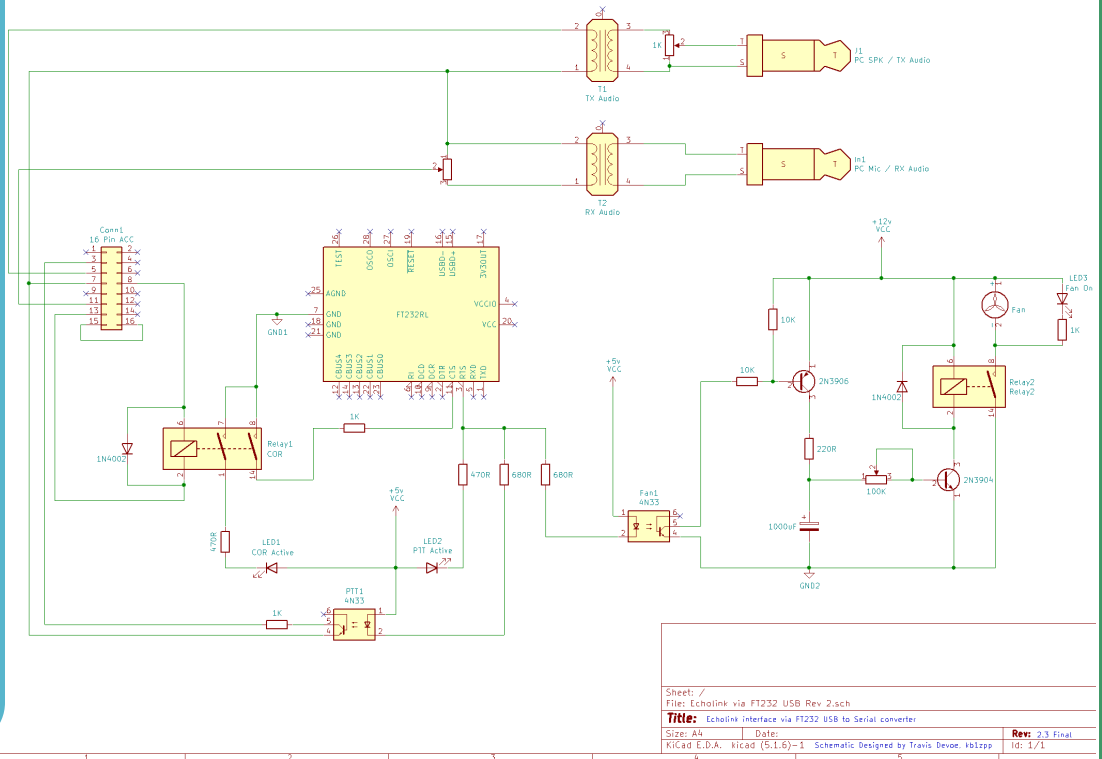


Photo of the Month

USB Echolink Interface by kb1zpp (click the image to open full size)

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



Monthly Meeting Review



It's been a crazy year and most everything has been put on hold. We would like to hold at least one meeting in person before the end of the year to touch base with all our members. This will be held at the usual spot, the Northern Door Inn.

Social distancing is strongly encouraged and face masks are a requirement! The conference room is barely big enough for our meetings as it is, lets not push our luck. Please bring your own mask. Next meeting will be the 21st of November, and there will be pizza!



We are now using zoom to host 'check ins' and club meetings. Our next meeting will be in person as well as streamed via zoom. To attend the meeting [subscribe to our email list](#) so you'll get the invite. (if you're getting this newsletter in an email you're already signed up)

Click an icon below to download the client for your system. Android and IOS users can find the APP in their respective marketplace.



What's New With Amateur Radio

FCC Orders Amateur Access to 3.5 GHz Band to "Sunset"

Pulled from the QRZ forum [here](#).

Click [this link](#) to read the entire FCC docket.

The following was stolen from the [ARRL website here](#).

10/08/2020

Despite vigorous and continuing opposition from ARRL and others, the FCC has ordered the "sunsetting" of the 3.3 – 3.5-GHz amateur radio secondary spectrum allocation, effective on November 9. The decision allows current amateur activity on the band to continue, "grandfathering" the amateur operations subject to a later decision. The FCC proposed two deadlines for amateur operations to cease on the band. The first would apply to the 3.4 – 3.5 GHz segment, the second to 3.3 – 3.4 GHz. The FCC will establish the dates once it reviews additional comments.

"We adopt our proposal from the Notice of Proposed Rulemaking to remove the amateur allocation from the 3.3 – 3.5 GHz band," the FCC said in its Report and Order (R&O) and Further Notice of Proposed Rulemaking in WT Docket No. 19-348 "We adopt changes to our rules today that provide for the sunset of the secondary amateur allocation in the band, but allow continued use of the band for amateur operations, pending resolution of the issues raised in the Further Notice."

-Note from the editor-

Just to be clear that last paragraph says, "You're still ok to use it until the 3.5GHz range is sold to the highest bidder", which ill bet will be either Sprint/T-Mobile or Verizon.

I think it may be time for amateurs throughout the US to start looking at alternative options to spectrum defense, as the ARRL has proven once again that they are no match for the FCC. -kb1zpp

"I am of the opinion that the FCC has now set a powerful precedent in deconstructing many of the Part 97 allocations.

Our inability to defend against that indicates unrealistic assessments on our use and need of microwave spectrum, and failure to present solution sets in the face of NPRM assertions of future revocation of spectrum.

Put in the inability to call things what they are--'sunsetting'.

The ARRL needs to reassess its spectrum defense policies immediately--if the ARRL is to make assumptions about being the 'national association of amateur radio'.

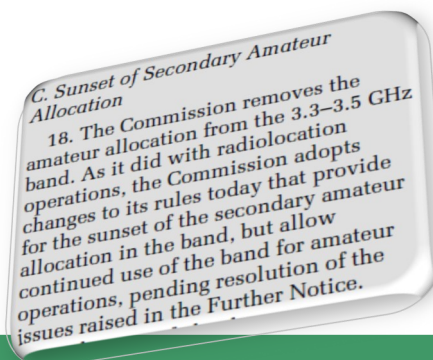
They certainly, as an association, did not succeed, with this revocation. The fact they and others were warned on the right track to take from the get go, and ignored or rejected it as an implementation, obviously proved fatal in this challenge.

When I look back at the absolutely (IMO) horrible and public comments taken against me --particularly by K5XS and WY7BG-- as I warned and advised on this, I can only say, IMO : GET YOUR ACT TOGETHER when it comes to constructive spectrum defense.

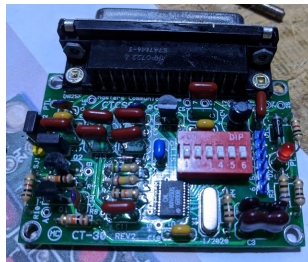
The messenger is NOT the enemy.

And by attacking the messenger, you incentivized the messenger to stay out of formally assisting in a solution.

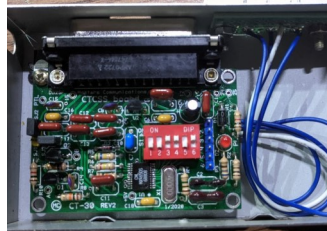
73 - Chip W1YW



Club / Member Projects



CTCSS Decoder Board Round Two!



If your not familiar with this issue, the new repeater controller requires a 'tone valid' signal as well as a 'squelch open' signal to activate the transmitter. For some unknown reason the repeater doesn't have the 'tone valid' signal built in so we need a stand alone board to handle this. The first board we got from Ebay (china) and it didn't work so well. Interference from the repeater itself was wreaking havoc with the tone decoder. This new decoder from masterscommunication.com has better input filtering which will hopefully solve the problem. -kblzpp

The first "chinesium" tone board for 640 had RFI issues and was activating erratically, if at all. This new board should be a 'ham friendly' board as it was designed for this specific use, in a repeater system. The CT-30 from masterscommunications.com came as a kit and I finally had a chance to solder it all together. I also added a metal enclosure from the scrap bin to try to cut down on interference. This board seems to be better thought out than the last one we had, and hopefully will work better. When I get a chance, ill take a ride up the hill and swap it in.

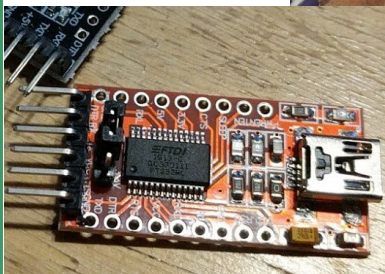


To submit your project send an email to sjvarafk@gmail.com Attn: projects

Reader Submission

In my spare time throughout the summer I've been working on a new Echolink node here at the house. The old Dell OptiPlex that was running the Echolink node previously, finally gave up and succumbed to the electronic gods. She was given a proper burial with full rights prior to her newer, faster, slimmer, replacement resuming duties on the shelf.

I dug up an old Emachines 'slim' pc, installed windows 10, which is still free by the way, and installed Echolink. Since this PC had no DB9 serial port I picked up an FT232 USB to serial board from Amazon and got to work.



The FT232 board takes a USB input and turns it into a full 9 or 25 pin serial interface. The problem is every DIY Echolink interface I could find online used a real serial port not a virtual USB

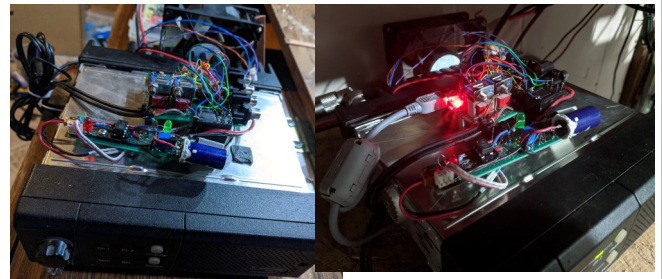
serial port, which uses different voltages to communicate.

After some testing and prototyping, I came up with a design and threw together a schematic. If your into schematic designs KiCad is an excellent program and it's what I used to create the schematic for this, which is what's on the first page. And its free!

The CTS pin gets sent to ground via a relay and 1k resistor, and tells the PC that the COR on the radio is active. This sends the audio coming into the radio, to the Echolink program and out over the web. This relay is driven via the radio's external COR pin. I could have used an opto-coupler but using the relay involved less math. The RTS pin is floating and when Echolink keys the PTT, this pin goes to ground. With an opto-coupler and another 1k resistor this sends the external PTT line on the radio to ground and keys the transmitter. This also sends the audio from the Echolink program (web user) into the radio and out over the air.

A couple transistors and a 1000uF capacitor, tied to the PTT line through another opto-coupler, hold the fan on for about a minute and a half after the transmitter drops to cool it down.

Audio is passed straight through from radio to PC via a pair of 600 ohm, 1:1 audio transformers for isolation. -kblzpp



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



What are you working on? Let us know what projects your starting as summer heats up!

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!



Upcoming Events

The next Club meeting is November 21st at the Northern Door Inn. Same place, same time, high noon. Pizza will be served!

Another installment of the Tech Class will be held on the 7th at the Micmac building in Presque Isle. For more info, or if you know anyone who would like to sign up, contact Darren at darren@aroostookema.com

The Northeast Ham Exposition is going virtual! This years convention is being held online for **free!** For more information click on the [NE HamXpo](#) banner below!



To submit an event, email the description, date, and other pertinent info to sjvarafk@gmail.com Attn: events

Quick Tips

As more and more people get licensed, I see more questions about which aftermarket replacement antenna is the best. Most of the time the person looking for help has a Baofeng but this applies to most any HT on the market.

The antennas HT's come with are, right out of the box, a compromised antenna. They are too short for 144 Mhz and too long for 440 Mhz. What they do very well though is keep a low profile while on your belt and avert some awkward moments when people ask you why your HT antenna is sticking up past your head.

One such notorious case is the UV-5R factory antenna. The radio is designed to cover from 136 to 174 and 400 to 500 Mhz (520 on some models). There isn't one whip on the market that will perfectly cover the entire range, its just not electronically or physically possible. This means the whip your HT ships with is 'tuned' to the middle of the bands, usually, which puts your best SWR out of the amateur range. Most stock antennas will dip (show the best SWR) around 160 Mhz and 450 Mhz. Side note they make great commercial band antennas.

Nagoya is probably the most well known 'after market' antenna for handheld radios in general, but most certainly for the Baofeng. They are cheap and work well on both bands. They make a few different models from a stubby all the way up to a full 19 inch, 1/4 wave whip. Unless you need something more sturdy there is really no reason to spend any more money than the twenty or so dollars for the Nagoya.

So now that we know what the best antenna is, where do we get it? Usually I would recite the usual suspects, Amazon or eBay, but the same problem that plagues the Baofeng branded radios also infected the

Nagoya market, cheap Chinese clones. In the past few years, with the help of eBay first then Amazon, China has cloned and imported almost everything they can. Now whether the clones are "night shift specials" or full on clones, they suck and they tarnish the already dicey reputation of the Baofeng and Nagoya brands.

So where is the best place to get a genuine antenna? There are some places on Amazon and eBay that do sell genuine antennas but its hard to tell which are fake. One person can order from a listing and get a genuine antenna and the next person can order from the same listing and get a fake. If you have the gear to test and make sure your getting what you paid for, you can take your chances with Amazon. The better option would be to get the antennas from a reputable distributor, this way they do all the hard work of making sure it's a genuine Nagoya antenna.

BaofengTech.com is the ONLY distributor in the US that works directly with Baofeng China to resolve issues and improve user interface. They make sure all the radios and accessories that they sell are genuine and have excellent customer service when things go wrong. Baofengtech.com offers all the Nagoya antennas as well as other Nagoya genuine accessories. You can use the checkout on the BTech website or use the Amazon links to get to the genuine BTech store on Amazon. Check out the links below for more info on BTech and HT antennas. -kb1zpp

- [Antennas And Accessories](#) —
- [John Miklor's Best Antenna](#) —
- [How To Spot A Fake Nagoya](#) —



If you would like to submit your tips or tricks, email them to sjvarafk@gmail.com Attn: just the tip

Send Us Your
Tips & Tricks
Hacks & Mods



A Few Words From KB6NU

AMSAT 2020 Space Symposium

By Dan Romanchik, KB6NU

The 38th AMSAT Space Symposium and Annual General Meeting was held online on October 17, 2020. I'm kinda bummed about this because I just joined AMSAT, but somehow, I managed to miss this event. Fortunately, the symposium was recorded and is now online, and I've been enjoying watching the video (https://www.youtube.com/watch?v=EHDgrI_w8hY).

The video includes updates on AMSAT projects and presentations on amateur satellite technology. For details on presenter names and presentation titles, visit the AMSAT website. AMSAT members can access the Symposium Proceedings on the AMSAT website as well. (The proceedings for all the AMSAT Symposiums are available there as well, but you do have to be an AMSAT member.)

Here's a list of the different presentations on the video and the times at which they start:

- 0:00:00 Welcome
- 0:02:07 AMSAT GOLF-TEE System Overview and Development Status
- 0:43:02 GOLF IHU Coordination
- 1:19:10 GOLF Downlink Coordination
- 1:50:15 FUNcube Next
- 2:13:50 LunART – Luna Amateur Radio Transponder
- 2:45:35 CatSat HF Experiment Overview
- 3:13:30 Neutron-1 CubeSat
- 3:39:58 Progress and Development of Open Source Electric Propulsion for Nanosats and Picosats
- 4:15:00 AMSAT Education
- 5:14:00 ARISS (Amateur Radio on the International Space Station) / AREx (Amateur Radio Exploration)
- 6:14:00 AMSAT Engineering
- 7:21:16 AMSAT Annual General Meeting

So far, I've only watched the GOLF-TEE System Overview and the AMSAT Education presentation. They were both interesting and I'm looking forward to watching the others.

I really hadn't been keeping up with AMSAT lately, so the presentation on the GOLF project was definitely news to me. GOLF is an ambitious project aimed at sending up high Earth orbit (HEO) satellites. GOLF is short for "Greater Orbits Larger (user communication) Footprints". This is really pretty exciting stuff.

Watching these presentations really gives one an appreciation for the work that goes into the design of these satellites and the technical skills and dedication of the hams working on these projects. These guys are not getting paid to do any of this work, and as Eric Skoog, K1TVV, a GOLF System Engineer, said in his presentation, "Space is hard."



Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and often appears on the ICQPodcast (icqpodcast.com). When he's not trying to work the satellites, he teaches online ham radio classes and operates CW on the HF bands.

Check out Dan's website for [study guides](http://www.kb6nu.com), (Tech guide is free!) ham shack gear recommendations, and a daily blog.

www.kb6nu.com



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.

Swap

Buy
Sell



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!

ISO
Free
Trade



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.

["Designer Duncan Meerding Turns Old Salvaged Logs Into Awesome Looking Lamps"](#)



If you would like to submit your random stuff, email it to sjvarafk@gmail.com Attn: uh, that's random



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

[Google Drive](#)

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

Flash Cards and Practice Exams - www.hamstudy.org

Online Meeting App - Zoom (subscribe to this newsletter to attend)

Affiliates

Aroostook Amateur Radio Association

www.kifs.org

Maine Amateur Radio Foundation

www.mar.foundation

Amateur Radio Relay League

www.arrl.org

Can Am Crown

www.can-am-crown.net

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

Mailing Address

SJVARA
Attn: Travis Devoe
3191 Aroostook Rd
Eagle Lake, ME 04739



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.

Officer Contact List

	Club Email		
	sjvarafk@gmail.com	N1SJV	
President	Travis Devoe	coolman1987us@gmail.com	KB1ZPP
Vice President	Derrick Ouellette	kw1a@arrl.net	KW1A
Treasurer	Carl Pelletier	cjpmail211@gmail.com	N1EVO

Membership
Payment Links



Payment Via
Snail Mail

SJVARA

Attn: Carl Pelletier

22 Municipal Drive

Fort Kent, ME 04743

