



JANUARY 2024

Volume 13 Issue 1

# VE3ERC-LUB

**President: Reg VE3RVH****Vice-President: Frank VA3FJM****Secretary: Tom VE3DXQ****Treasurer: Ted VE3TRQ****Trustee: Wes VE3ML****QSL Manager: Kirk VA3KXS****Repeater Trustee: Wes VE3ML****Website Admin: Ted VE3TRQ****Lighthouse:****Maple Syrup Display:****Newsletter: Bob VE3IXX****ERC Website: <https://ve3erc.ca>**

## ERC REPEATERS

**UHF 444.700 + TONE: 131.8****UHF 444.700 + TONE: 123.0****VHF 147.390 + TONE: 123.0****VHF 147.255 + TONE: 131.8****EMERGENCY SIMPLEX: 146.550****UHF-IRLP node 2404,ECHOLINK VE3ERC-L****VHF- IRLP node 2403,ECHOLINK VE3ERC-R****Remember when....**

**In an emergency, tune  
Into our repeaters,  
UHF 444.700 or  
VHF 147.390 or  
HF 3.755 LSB or  
Simplex 146.550  
For coordination and  
assignments.**

**Radio Amateurs  
of Canada**

# THE PREZ SEZ!

This club is Radio-ACTIVE  
This club is Radio-ACTIVE

## President's Update for January 2024

### Youth On The Air Camp Comes Back to Canada!

**Radio Amateurs of Canada is pleased to announce that the Youth On The Air (YOTA) Camp will once again be held in Canada!**

Attention all young Amateur Radio operators! YOTA Camp is back and better than ever! After the success of the YOTA Camp in Ottawa in July 2023, Radio Amateurs of Canada has teamed up with Youth On The Air Americas to bring YOTA back to Canada.

YOTA Camp 2024 will be held at the Mount Saint Vincent University campus in Halifax, Nova Scotia from July 7 to July 12.

Modelled after the successful Youngsters On The Air program in Region 1 of the International Amateur Radio Union (IARU), this will be the fourth YOTA Camp in the Americas with past camps being held in Cincinnati, USA (2021 and 2022) and Ottawa, Canada (2023).

YOTA Camp is open to Amateur Radio operators between the ages of 15 and 25. A total of 50 campers will be accepted to this year's program, an increase from last year. Don't miss out on this incredible opportunity!

Come to YOTA Camp and we'll teach you all kinds of cutting-edge technology that can be used with Amateur Radio and connect you to other young operators and mentors in North, Central and South America. Through this program, young Amateurs will learn and practise essential skills taught through STEM principles such as electronics and radio wave propagation. The program will also prepare young Amateurs to contribute during emergencies and provide numerous opportunities in their own communities and future careers.

Are you already an expert? We are seeking young Amateurs who are willing to take their knowledge to the next level and share their past experiences with other young Amateurs. The camp will primarily focus on building strong relationships with peers and mentors, as well as developing new radio skills. Campers will operate a special event station featuring cutting-edge HF and VHF/UHF radios and a wide array of antennas that many only dream of using.

**Applications are now being accepted! Applications submitted by January 15, 2024 and first-time attendees will be given priority. We will accept applications through May 31, 2024.**

The application process is free. The cost of the camp is \$100 USD plus transportation to and



from the Mount Saint Vincent University campus. The \$100 USD fee will not be payable until after acceptance. Should a potential camper not be able to afford the fee, they may apply for a scholarship or waiver.

**Sponsorship:** This is an excellent opportunity for Amateur Radio clubs to help build the leaders of tomorrow. Radio Amateurs of Canada is also pleased to introduce the new "Send A Youth to Camp Campaign" which will run from February 1 to June 1 in which proceeds collected will be disbursed to assist campers with travel expenses. More information will be available in January on the RAC website.

**Important:** YOTA Camp 2024 organizers will provide updates on our website and through social media if there is any impact on the camp such as the need to reschedule.

For complete details about the camp and/or to sign up for updates by email, please visit the camp webpage provided below or contact [yota2024@rac.ca](mailto:yota2024@rac.ca).

For additional information, please contact:  
Camp Director Neil Rapp, WB9VPG: [director@youthontheair.org](mailto:director@youthontheair.org)

**YOTA Camp 2024** – <https://youthontheair.org/halifax2024/>  
**Youth On The Air** – [YouthOnTheAir.org](https://YouthOnTheAir.org)

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## Tech Tips

**Tony VE3DWI sent the following:**

If you have a lot of battery operated Christmas ornaments, miniature lights, candles etc., remove the batteries and store them separately for next year or for use in the near future.

Don't just throw them in a box where they are loose. It could cause some problems.

I use (you don't throw them out either -right!) plastic pill bottle containers. The short fat ones are ideal for double A's. They store seven with a little room to spare. If one isn't full, fill up the empty space with a kleenex tissue to keep them from rolling around.

You'll be happy not to get them mixed up with new ones and if they leak, they are safely contained.

**73, Tony, VE3DWI**



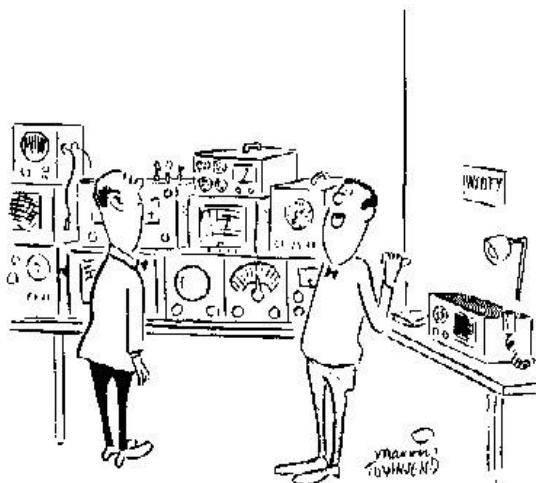
## **CONTRIBUTIONS TO VE3ERC-CLUB NEWSLETTER**

**Do you have an article you'd like to submit? Or photos? Do you have any comments you'd like to make?**

**Perhaps you'd like to share a photo of your shack, a special project you are working on or a special interest!**

**SEND THEM TO:**

**Bob [bobve3ixx@gmail.com](mailto:bobve3ixx@gmail.com)  
(519-787-2279)**



"My transceiver is over here.  
That's just my testing equipment."

Thanks to Hagen VE3QVY who says: This what my HAM shack is shaping up to be...

## **WEDNESDAY NITE NET CONTROLLERS**

**2024 JANUARY 3 - BILL VA3QB**

**JANUARY 10 - BOB VE3IXX**

**JANUARY 17 - REG VE3RVH**

**JANUARY 24 - M E E T I N G**

**JANUARY 31 - FRANK VA3FJM**

**FEBRUARY 7 - TOM VE3DXQ**

**FEBRUARY 14 - TED VE3TRQ**

**FEBRUARY 21 - TONY VE3DWI**

**FEBRUARY 28 - M E E T I N G**

**MARCH 6 - BRIAN VA3DXK**

**MARCH 13 - BILL VA3QB**

# Marconi 122 – Celebrating 122 years of Radio

By Rob Noakes VE3PCP

As amateur radio operators, we explore new technologies on a regular basis but we have to also embrace and celebrate the accomplishments of those before us.

One such accomplishment, that some would say was the start of radio as we know it, happened on December 12, 1901 at Signal Hill in Newfoundland, Canada.

On 12 December 1901, Guglielmo Marconi raised a 150-metre-long antenna (which was

attached to a kite) over Signal Hill in St. John's, Newfoundland, Canada. This antenna received

the first transatlantic signals ever sent via radio waves.

The signals — for the letter "S" in Morse code — came from Marconi's high-powered wireless transmitting station in Cornwall, United Kingdom, some 3,500 km away.



On December 12, 2023, the Inverhuron Ham Radio Club, lead by Rob Noakes, VE3PCP, the founder of the club, conducted an all day operation using their "Remote Station" in the tiny Hamlet of Inverhuron Ontario, Canada. On the shore of Lake Huron, one of Canada's Great Lakes.

We operated with our club call sign VA3XXT. This was the first operation with this call sign.

Remote operated stations in Amateur radio are becoming more common place and in Canada one has to hold an Advanced qualification to own and set

up one such station. Rob has held such qualifications since 1986. The club has both an HF and a dual band VHF/UHF remote station in operation, 7 days a week from 4:30AM until 10PM.

As the station is owned and operated by Rob and he was in the station and in control, he was able to have others join him and participate in the communications during the day. As per Canadian Radiocommunication Regulation SOR-96-484 Section 46(1)












Rob began the operation at 5:45 AM local time on 160M. Each hour, we moved up to the next band. We covered 9 bands during the day and had contacts on all bands except 10M. The propagation just wasn't there by the time we got to 10M. We ended the operation at 4:45 PM local time.

At 8:20 AM, Raissa, VO1BIG joined Rob for some time operating on 40M. She is affectionately

Cal is a well know amateur and operates often as M0XXT with livestream videos each week. He is also known as the DX Commander, founder and owner of DX Commander Antennas, a manufacturer for an offering of all band vertical antennas and related accessories. Sold and shipped worldwide.



VA3XXT EN94EG				
log start		12-Dec-2023, 10.43		
log end		12-Dec-2023, 21.36		
operating period		10 hours 53 min		
operating time		10 hours 53 min		
off time		0 hours 0 min		
± QSOs		223		
CW		4		
Phone		219		
Band	QSO	CW	Phone	Digi
160m	5	0	5	0
80m	3	0	3	0
40m	95	0	95	0
30m	4	4	0	0
20m	62	0	62	0
17m	10	0	10	0
15m	36	0	36	0
12m	8	0	8	0
± Gridsquares		102		
± Gridfields		16		
± Countries		11		

VA3XXT - EN94EG				
1	CT		Portugal	4
2	F		France	1
3	G		England	3
4	VB		Saint Vincent and the Grenadines	1
5	ON		Belgium	2
6	RU4		Romania	1
7	S3		Slovenia	2
8	SM		Sweden	1
9	VE		Canada	36
10	VP9		Bermuda	2
11	W		USA	169

Cal listened along with Raisa operating for a period before taking over and operating until the end of the day and putting a ribbon on a great day of amateur radio.

Cal brought his own pileup with him and made contacts on both 40M and 20M. Many stations that would have had trouble working him from the UK were able to get in the log. He did a livestream from his shack and his many viewers followed along and made contact as they could.

The technology we use is called RemoteHams, also known as RCForb. This software works with 2 parts, a server and a client. The server resides in Rob's location on a "shack" computer and is connected to his modest station, a Kenwood TS-870 connected to an Ameritron AL-811 amplifier and then to a modified vertical antenna that covers 160M through 10M. There is also a full sized 80M Delta Loop and a tri band yagi that can be used as necessary. For the most part, the vertical gives excellent performance for the remote station as it provides omni directional coverage without the need to rotate a directional antenna around. We do tend to use the delta loop on 80M due to its wider bandwidth however.



## CORRESPONDENCE

Rod VA3MZD wrote "Create your own Azimuthal Map" with the following:

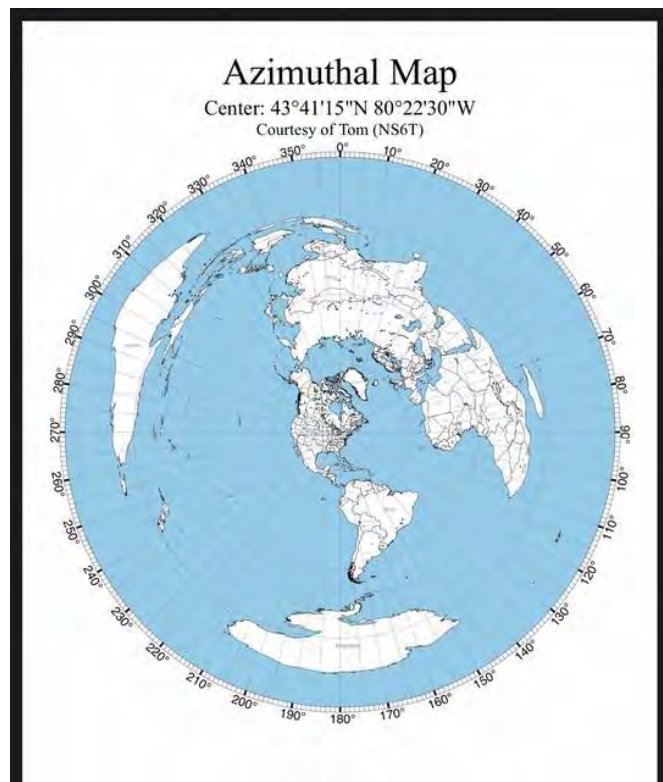
In what direction are the signals coming from your most recent DX contact?

To what direction would I want to point a beam to have the best chance of a South Africa contact (assuming I had a beam!)?

Which locations was my signal being received based on my antenna set up?

This link will create an Azimuthal Map with your location (or any other lat/long) at the centre. You can also use your Maidenhead Square. The map can be formatted for printing.

<https://ns6t.net/azimuth/azimuth.html>





**From  
the**

**PAST**

**BATTERIES  
NOT  
INCLUDED.**



Thanks to Tony VE3DWI for sending this.



**Hamvention is the Hub for Hams around the Globe..  
..But how did Hamvention become home of the Hams?**

Around the year 1950, John Willig W8ACE asked the Dayton Amateur Radio Club to sponsor a local Ham Convention. To his dismay, he was turned down, but that didn't stop John. After a couple years of patiently waiting, John connected with the new president of the club, Frank Schwab, W8YCP (W8OK), who was open to the idea.

Shortly after, the first Hamvention meeting was held in 1952, where \$100 was allocated to get the festival started. John knew that speakers and prizes would be the main attraction, and first prize for the event was a Collins 75A2. When the FCC agreed to give licensed exams at the event, the first Hamvention was on its way to success and prosperity for many years to come.

More than double the expected turnout of 300 people arrived in Dayton to see the 7 exhibitors and 6 forums, and the convention has only expanded since. After a long year of waiting, we may see more ham radio operators than ever, ready to enjoy a convention made possible by the hams that came before us.

Celebrate Hamventions past and present

Thanks to Tony VE3DWI for this article.

# TIPS ON LEARNING AND OPERATING CW (Morse Code)

## Part 2

### The CW Operators Guide Original Author Unknown PROSIGNS FOR MORSE CODE

Prosigns are symbols formed by running together two characters into one (without the intercharacter space) to make an abbreviation for the most common procedural signals. Usually

written with a BAR over the characters.

AR ----- End of message

AS ----- Stand by

BK ----- Invite receiving station to transmit

BT ----- Pause; Break For Text

CL ----- Going off the air (clear)

CQ ----- Calling any amateur radio station

K ----- Go, invite any station to transmit, usually after calling CQ

KA ----- Beginning of message

KN ----- End of transmission, Go only, invite a specific station to transmit

R ----- All received OK

SK ----- End of contact (sent before call)

VE ----- Understood

### CW ABBREVIATIONS

AA - All after

AB - All before

ABT - About

ADEE - Addressee

ADR - Address

AGN - Again

AM - Amplitude Modulation

ANT - Antenna

BCI - Broadcast Interference

BCL - Broadcast Listener

BCNU - Be seeing you

BK - Break, Break in

BN - All between; Been

BT - Separation (break) between addr & text;  
between txt & signature

BTR - Better

BUG - Semi-Automatic key

B4 - Before

C - Yes, Correct

CFM - Confirm; I confirm

CK - Check

CKT - Circuit

CL - I am closing my station; Call

CLBK - Callbook

CLD - Called

CLG - Calling

CNT - Can't

CONDX - Conditions

CQ - Calling any station

CU - See You

CUL - See You later

CUM - Come

CW - Continuous wave

DA - Day

DE - From, This Is

DIFF - Difference

DLD - Delivered

DLVD - Delivered

DN - Down

DR - Dear

DX - Distance

EL - Element

FB - Fine Business, excellent

FER - For

FM - Frequency Modulation: From

GA - Go ahead; Good Afternoon

GB - Good bye, God Bless

GD - Good

GE - Good Evening

GESS - Guess

GG - Going

GM - Good morning

GN - Good night

GND – Ground	RTTY - Radio teletype	YL - Young lady
GUD – Good	RST - Readability, strength, tone	YR – Year
GV – Give	RX - Receive, Receiver	30 - I have no more to send
GVG - Giving	SASE - Self-addressed, stamped envelope	73 - Best Regards
HH - Error in sending	SED – Said	88 - Love and kisses
HI or HiHi - The telegraph laugh; high	SEZ – Says	161 - 73+88=161
HPE – Hope	SGD – Sign	
HQ – Headquarters	SIG - Signature; Signal	
HR - Here; Hear	SINE - Operator's personal initials or nickname	
HV – Have	SKED - Schedule	
HW - How, How Copy?	SRI – Sorry	
IMI - Repeat, Say Again	SS – Sweepstakes	
INFO – Info	SSB - Single Side Band	
LID - A poor operator	STN – Station	
LNG – Long	SUM – Some	
LTR - Later; letter	SVC - Service; Prefix to service message	
LV – Leave	T – Zero	
LVG – Leaving	TFC – Traffic	
MA – Millamperes	TMW – Tomorrow	
MILL – Typewriter	TKS – Thanks	
MILS – Millamperes	TNX – Thanks	
MSG - Message; Prefix to radio gram	TR – Transmit	
N - No, Negative, Incorrect,	T/R – Transmit/Receive	
NCS - Net Control Station	TRIX – Tricks	
ND - Nothing Doing	TT – That	
NIL - Nothing; I have nothing for you	TTS - That is	
NM - No more	TU - Thank you	
NR – Number	TVI - Television interference	
NW - Now; I resume transmission	TX – Transmitter; Transmit	
OB - Old boy	TXT – Text	
OC - Old chap	U – You	
OM - Old man	UR - Your; You're	
OP – Operator	URS – Yours	
OPR – Operator	VFB - Very fine business	
OT - Old timer;	VFO - Variable Frequency Oscillator	
Old top	VY – Very	
PBL – Preamble	W – Watts	
PKG – Package	WA - Word after	
PSE – Please	WB - Word before	
PT – Point	WD – Word	
PWR – Power	WDS – Words	
PX – Press	WID – With	
R - Received as transmitted; Are;	WKD – Worked	
Decimal Point	WKG - Working	
RC – Ragchew	WL - Well; Will	
RCD – Received	WPM - Words Per Minute	
RCVR – Receiver	WRD – Word	
RE - Concerning; Regarding	WUD - Would	
REF - Refer to; Referring to; Reference	WX- Weather	
RFI - Radio frequency interference	XCVR – Transceiver	
RIG - Station equipment	XMTR –Transmitter	
RPT - Repeat, Report	XTAL - Crystal	
	XYL – Wife	

## The RST System

The RST System of Signal Reporting has been used for years (circa 1934) as a shorthand method of reporting Readability, Signal Strength and for CW, Tone (i.e., quality of the CW tone).

For voice contacts only the R and S are used. The S component is usually not the same as your S-Meter reading as most S-Meters aren't calibrated to track the RST System. The RST is also reported on QSL Cards and must be filled in correctly -- e.g., a 569 report for a Voice Contact is invalid. Note that many DX operations and contest stations merely report 59(9) as a convenience to avoid having to log each of the real reports. A questionable practice but a fact of Dxing/Contesting.

### READABILITY

- 1 -- Unreadable
- 2 -- Barely readable, occasional words distinguishable
- 3 -- Readable with considerable difficulty
- 4 -- Readable with practically no difficulty
- 5 -- Perfectly readable

### SIGNAL STRENGTH

- 1 -- Faint signals, barely perceptible
- 2 -- Very weak signals
- 3 -- Weak signals
- 4 -- Fair signals
- 5 -- Fairly good signals
- 6 -- Good signals
- 7 -- Moderately strong signals
- 8 -- Strong signals
- 9 -- Extremely strong signals (50mV across 50W)

### tone

- 1 -- Sixty cycle a.c. or less, very rough and broad
- 2 -- Very rough a.c. , very harsh and broad
- 3 -- Rough a.c. tone, rectified but not filtered
- 4 -- Rough note, some trace of filtering
- 5 -- Filtered rectified a.c. but strongly ripple-modulated
- 6 -- Filtered tone, definite trace of ripple modulation
- 7 -- Near pure tone, trace of ripple modulation
- 8 -- Near perfect tone, slight trace of modulation
- 9 -- Perfect tone, no trace of ripple or modulation of any kind

Infrequently used is the addition of a letter to the end of the 3 numbers.

These are: X = the signal is rock steady like a crystal controlled signal;

C = the signal is chirpy as the frequency varies slightly with keying;

and K = the signal has key clicks.

X is from the early days of radio when such steady signals were rare. Today most all signals could be given an X but it is hardly ever used. It is helpful to report a chirpy or clickie signal by using the C or K, e.g. 579C or 579K.

Often signals are stronger than S9 (50mV across 50W) and are given in decibels above S9 according to the receiver S meter. Eg: "You are 25dB above S9"

Q-Signals For Amateur Radio Operators In Bold indicates frequent use.

Q-Sig Message

QRA What is the name of your station? The name of my station is \_\_\_\_.

QRB How far are you from my station? I am \_\_\_\_ km from your station.

QRD Where are you bound and where are you coming from? I am bound \_\_\_\_ from \_\_\_\_.

QRG Will you tell me my exact frequency? Your exact frequency is \_\_\_\_ kHz.

QRH Does my frequency vary? Your frequency varies.

QRI How is the tone of my transmission? The tone of your transmission is: (1-Good,

2-Variable, 3-Bad.)

QRJ Are you receiving me badly? I cannot receive you, your signal is too weak.

QRK What is the intelligibility of my signals? The intelligibility of your signals is: (1-Bad, 2-Poor, 3-Fair, 4-Good, 5-Excellent.)

QRL Are you busy? I am busy, please do not interfere.

QRM Is my transmission being interfered with? Your transmission is being interfered with: (1-Nil, 2-Slightly, 3-Moderately, 4-Severely, 5-Extremely.)

QRN Are you troubled by static? I am troubled by static: (1-5 as under QRM.)

QRO Shall I increase power? Increase power.

QRP Shall I decrease power? Decrease power.

QRQ Shall I send faster? Send faster (\_\_\_ WPM.)

QRR Are you ready for automatic operation? I am ready for automatic operation. Send at \_\_\_ WPM.

QRS Shall I send more slowly? Send more slowly (\_\_\_ WPM.)

QRT Shall I stop sending? Stop sending.

QRU Have you anything for me? I have nothing for you.

QRV Are you ready? I am ready.

QRW Shall I inform \_\_\_ that you are calling? Please inform \_\_\_ that I am calling.

QRX When will you call me again? I will call you again at \_\_\_ hours.

QRY What is my turn? Your turn is numbered \_\_\_.

QRZ Who is calling me? You are being called by \_\_\_. Also see [www.QRZ.com](http://www.QRZ.com)

QSA What is the strength of my signals? The strength of your signals is: (1-Scarcely perceptible, 2-Weak, 3-Fairly Good, 4-Good, 5-Very Good.)

QSB Are my signals fading? Your signals are fading.

QSD Is my keying defective? Your keying is defective.

QSG Shall I send \_\_\_ messages at a time? Send \_\_\_ messages at a time.

QSJ What is the charge to be collected per word to \_\_\_ including your international telegraph charge? The charge to be collected per word is \_\_\_ including my international telegraph charge.

QSK Can you hear me between your signals and if so can I break in on your transmission? I can hear you between my signals, break in on my transmission.

QSL Can you acknowledge receipt? I am acknowledging receipt.

QSM Shall I repeat the last message which I sent you? Repeat the last message.

QSN Did you hear me on \_\_\_ kHz? I did hear you on \_\_\_ kHz.

QSO Can you communicate with \_\_\_ direct or by relay? I can communicate with \_\_\_ direct (or by relay through \_\_\_.)

QSP Will you relay to \_\_\_? I will relay to \_\_\_.

QSQ Have you a doctor on board? (or is \_\_\_ on board?) I have a doctor on board (or \_\_\_ is on board.)

QSU Shall I send or reply on this frequency? Send a series of Vs on this frequency.

QSV Shall I send a series of Vs on this frequency? Send a series of Vs on this frequency.

QSW Will you send on this frequency? I am going to send on this frequency.

QSY Shall I change to another frequency? Change to another frequency.

QSZ Shall I send each word or group more than once? Send each word or group twice (or \_\_\_ times.)

QTA Shall I cancel message number \_\_\_? Cancel message number \_\_\_.

QTB Do you agree with my counting of words? I do not agree with your counting of words. I will repeat the first letter or digit of each word or group.

QTC How many messages have you to send? I have \_\_\_ messages for you.

QTE What is my true bearing from you? Your true bearing from me is \_\_\_ degrees.

QTG Will you send two dashes of 10 seconds each followed by your call sign? I am going to send two dashes of 10 seconds each followed by my call sign.

QTH What is your location? My location is \_\_\_.

QTI What is your true track? My true track is \_\_\_ degrees.

QTJ What is your speed? My speed is \_\_\_ km/h.

QTL What is your true heading? My true heading is \_\_\_ degrees.

QTN At what time did you depart from \_\_\_? I departed from \_\_\_ at \_\_\_ hours.

QTO Have you left dock (or port)? I have left dock (or port).

QTP Are you going to enter dock (or port)? I am going to enter dock (or port.)

QTQ Can you communicate with my station by means of the International Code of Signals? I am going to communicate with your station by means of the International Code of Signals.

QTR What is the correct time? The time is \_\_\_\_.

QTS Will you send your call sign for \_\_\_\_ minutes so that your frequency can be measured? I will send my call sign for \_\_\_\_ minutes so that my frequency may be measured.

QTU What are the hours during which your station is open? My station is open from \_\_\_\_ hours to \_\_\_\_ hours.

QTV Shall I stand guard for you on the frequency of \_\_\_\_ kHz? Stand guard for me on the frequency of \_\_\_\_ kHz.

QTX Will you keep your station open for further communication with me? I will keep my station open for further communication with you.

QUA Have you news of \_\_\_\_? I have news of \_\_\_\_.

QUB Can you give me information concerning visibility, height of clouds, direction and velocity of ground wind at \_\_\_\_? Here is the information you requested...

QUC What is the number of the last message you received from me? The number of the last message I received from you is \_\_\_\_.

QUD Have you received the urgency signal sent by \_\_\_\_? I have received the urgency signal sent by \_\_\_\_.

QUF Have you received the distress signal sent by \_\_\_\_? I have received the distress signal sent by \_\_\_\_.

QUG Will you be forced to land? I am forced to land immediately.

QUH Will you give me the present barometric pressure? The present barometric pressure is \_\_\_\_ (units).

QLF Are you sending with your left foot? I am sending with my left foot.

### **Additional Morse Characters**

Period . RK

Underscore \_ UA

Comma , NA

Single Quote ' Elong dashE

Slash / NR

Colon : (1) long dash S Plus + AR

Semicolon ; CN

Equal = NU

Dollar Sign \$ VU

Question ? UD

Warning RA

Error HH Repetition (ii ii) II

Dash BU

Exclamation ! KA

Quote " RR

Open Paren ( KE Close Paren ) KK

## Elmira Radio Club VE3ERC Meeting Wednesday, January 24, 2024

**VENUE** • Elmira Fire Hall – 44 Howard Ave, Elmira, Ontario

• Zoom Link – if you are unable to make it in person, Zoom is the next best thing!  
<https://zoom.us/j/98888306876?pwd=azJWNuXTOFcrQ0UvU2dlMFAyTlpCdZ09>

### AGENDA

7:00pm Virtual Eyeball QSO – Setup, Social time & Coffee

7:30pm

1. Meeting Call to Order, Welcome -The meeting was chaired by VP Frank VA3FJM who opened the meeting in Reg's VE3RVH absence with an announcement that he is attending Dayton Ham Convention May 17-19, 2024 and gave an invitation to others.

2. Roll Call & Quorum – VP-Frank FJM took Roll Call of those in attendance and via Zoom Graham VE3BYP (Zoom), David Bell VE3CSB (Zoom), Ken VE3KCY, Rich VE3DCC, Paul VA3PDC, Thomas VA3VRA, Judd N4WXU, Hagen VE3QVY, Bob VE3IXX, Tony VE3DWI, John VA3PT, Frank VA3FJM, Rod VA3MZD, Rene VA3RRP, Ted VE3TEQ, Roger VE3RKS, Dave Schneider VA3DAS, Linda VE3CZ (Zoom), Mike VE3FE (Zoom), Andy Burgess (new member).

3. Adopt Agenda - Acting Secretary Rod MZD tabled the Agenda with some revisions and Moved acceptance, Seconded by Tom VRA. Approved.

4. Presentations/Speakers/Workshop • Show and Tell:

1- Ted TRQ – Remote Operation of Digital Modes and SSB, JS8Call etc -

Ted planned to demonstrate remote operation of his Flex radio but was unable to do so due to a "Windows Failure."

2- Hagen QVY –tru SDX kit build

Hagen gave us a detailed walk through his QRP Labs and truSDX transceiver builds with a slideshow highlighting the soldering, winding coils, 3d printing the case, and testing results. Hagen's Slide deck can be viewed at the link below or the pdf attached to the email.

<https://docs.google.com/presentation/d/1tpAToswI737neMkenQeN0N1V60ZvCdUasyjoupPO0FQ/edit?usp=sharing> (Ed. Note: See following article)

5. Secretary's Report (Rod MZD) • Approve minutes of Previous Meeting

Rod noted the errors and omissions from the November 22, 2023 meeting that had been previously communicated - Tony DWI was added to the Roll Call and Marianne's Call Sign was corrected VE3MXT. Moved by Rod MZD and Seconded by Tony DWI that the minutes of the November 22, 2023 meeting be approved, Carried.

6. Treasurer's Report (Ted VE3TRQ) • Monthly Financial update

Ted shared the November 2023 and December 2023 Financial Statements on the screen. There were some dues paid and purchases made and duly recorded. The reports indicate that the Club is good financial shape and if required, could replace the repeaters. Ted indicated that we should be thinking about plans to spend some of the money. Ted will be completing the books for 2023 and will submit to Wes VE3ML for auditing. Ted moved acceptance of the Financial Reports. Seconded by Paul PDC. Carried.

7. President's Report - VP Frank FJM

Frank spoke about being acting President until Reg RVH returns.

8. Committee Reports • Repeater Technical Committee (Bill VA3QB/Tony VE3DWI)

Tony DWI reported that all the Repeaters are operational. Ted reminded everyone that the Alma

VA3TET Fusion WiresX Repeater is available for anyone with WiresX capability.

## 9. Unfinished Business • There was no Unfinished Business

10. New Business • Nomination Committee for 2024 AGM • Rich DCC reported on the Nomination Committee which consists of Reg RVH, Bob IXX and Rich DCC. All 5 positions are open: President, VP, Secretary, Treasurer, Trustee. Rich remarked that people need to step forward and put their names forward or nominate others.

•Guelph Data Centre tour (Dave VA3DAS, Ted VE3TRQ)

Ted TRQ and Dave DAS agreed to contact each other and that Ted TRQ will be the contact between the Data Centre and the Club while planning the tour.

•Guelph Venturer Crew- Bob IXX reported that he had a request via Brendan VE3BVB from a Venturer Crew in Guelph that there is an individual who is interested in Amateur Radio and they would like the Club to do a presentation. Bob IXX spoke with Rod MZD and they are planning to do a presentation to include FM, Repeaters, HF, Digital and portable operations, date TBA (maybe Feb 1st). Other volunteers to be involved were requested.

•ARRL/RAC YOTA Summer Camp, Halifax, NS, July 7-12. In keeping with Ted's comment about ways to spend some of our healthy financials, Rod MZD reported that the organizations sponsor an international summer camp normally held in the US but held in Ottawa last summer and Halifax in 2024. The 2023 Camp was recently featured in the RAC magazine. Rod suggested that as a club, we should discuss the idea of offering a scholarship to one of the young hams that Bob IXX worked with in Millbank in order that they might attend the camp. The deposit is \$US100 and they are responsible for their own transportation. To be discussed.

•Lending Library- Rene RRP inquired about the possibility of a Club lending library. 3D printer,, tools, testing equipment. Ted TRQ responded that the club had some equipment for club use, including a FT-897 radio and power supply, but that most of the other club equipment did not see sufficient use so most of it was divested. Frank FJM has a printer available for lending.

•Book Library- Tony DWI mentioned that he has a collection of Amateur Radio books that he would like to see in a Club Library.

## 11. Announcements • Next meeting: Wed February , 28, 2024

• Rod MZD-Wires-X Net Thursday, Jan 25, 2024 on VA3TET Repeater or via Wires-X Room 00561

•Paul PDC- Winter Field Day –Saturday January 28, 2024 2pm EST to Sunday 2pm. Paul encouraged others to get on the air and make the event successful by making contacts. Paul and Ken are operating from Ken's sugarbush. Rod will be operating from Belwood Lake Conservation Area.

•Happy Birthday to Tony DWI!!

•Tuesdays and Thursdays at 12 noon Bob IXX runs CW practice

•Tony DWI had used equipment for sale after the meeting

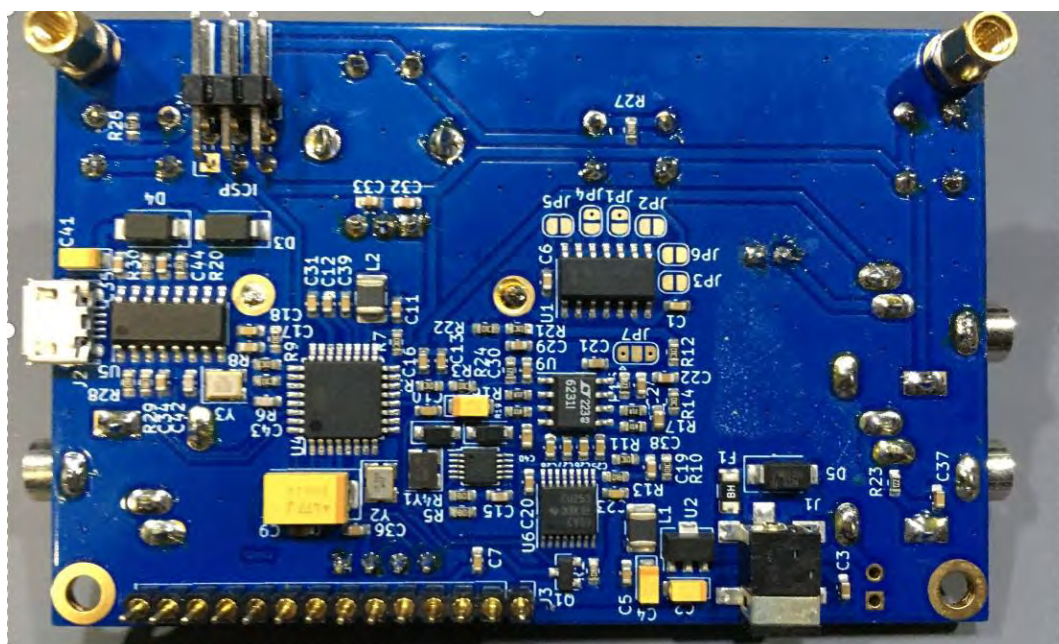
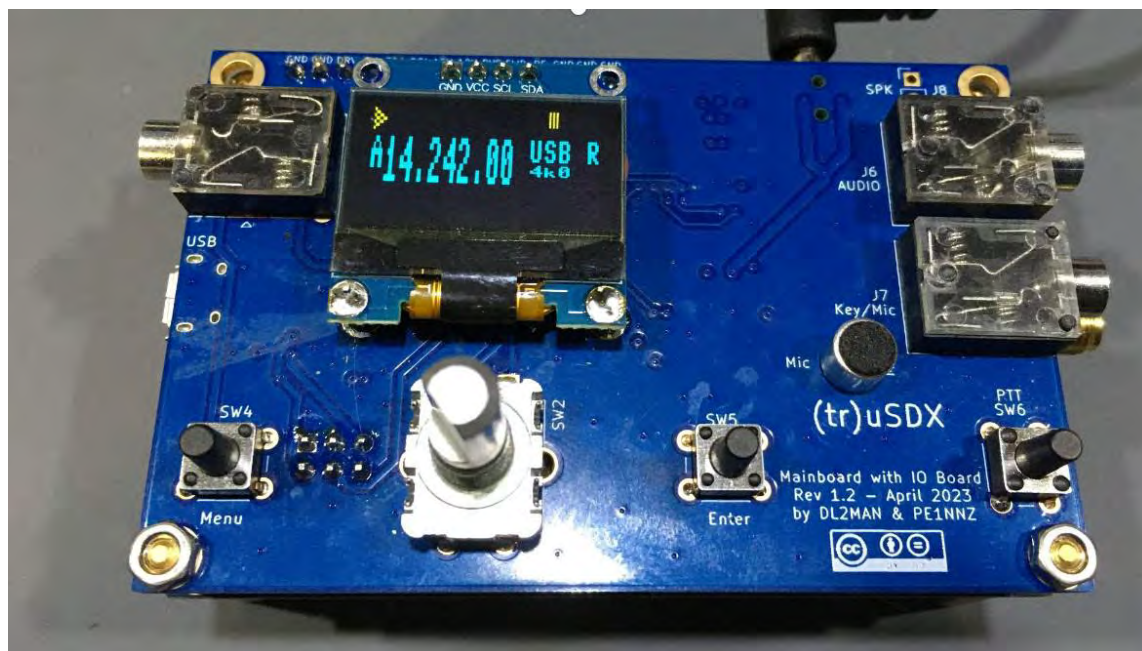
## 12. Adjournment • Motion to adjourn the meeting - Frank FJM Adjourned the meeting at 8:45pm

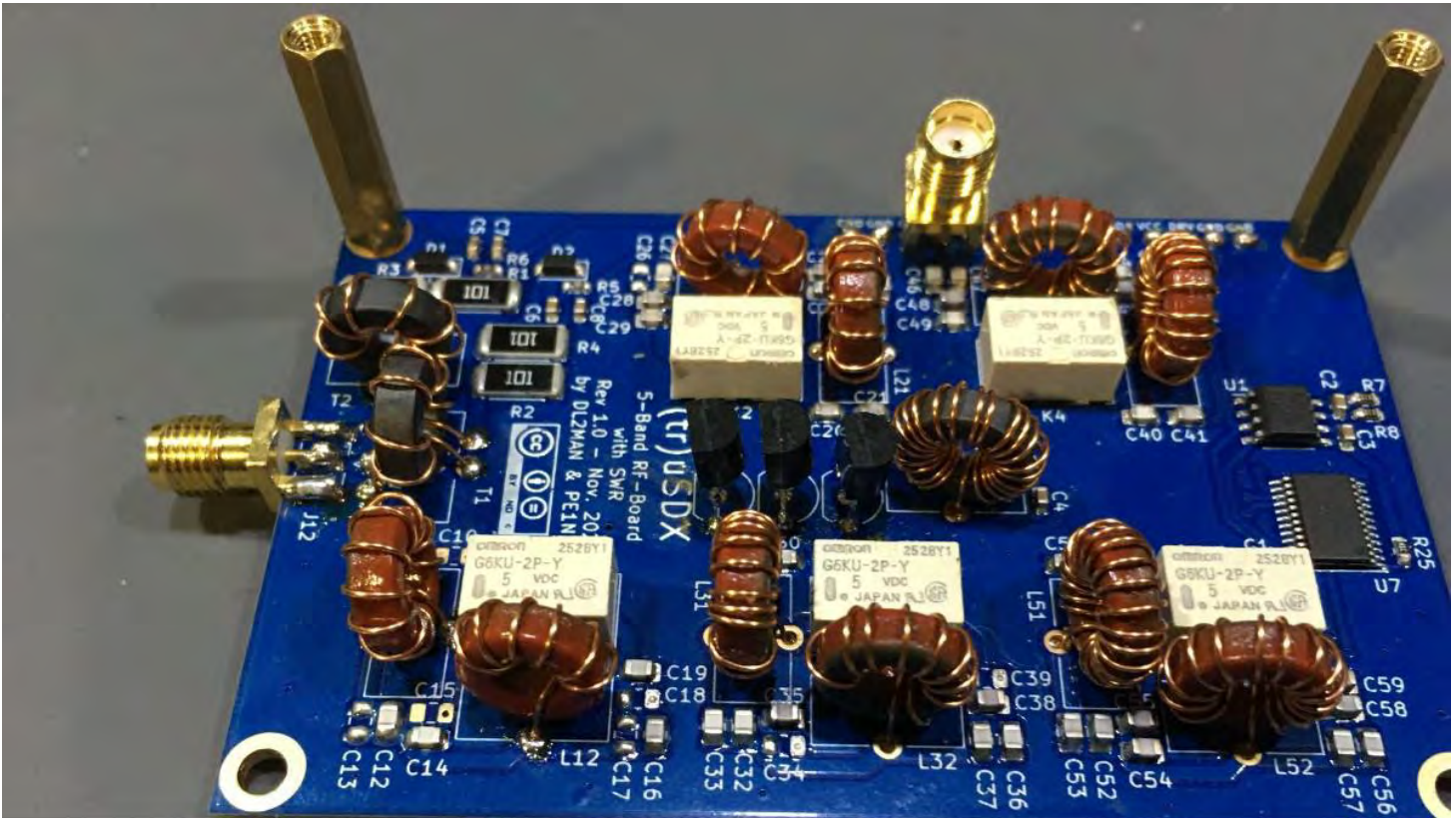
# (tr)uSDX radio kit

by Hagen Kaye ve3qvy

## Features

- SSB or CW on 80/60/40/30/20m
- Small form factor - low power - QRP
- Available as a kit - easy to build or completely assembled
- Low cost
- Rotary dial with display and 3 button interface
- Built in mic or plug in your own
- Built in speaker or plug in amplified speaker
- CAT controls
- SWR meter
- PA output





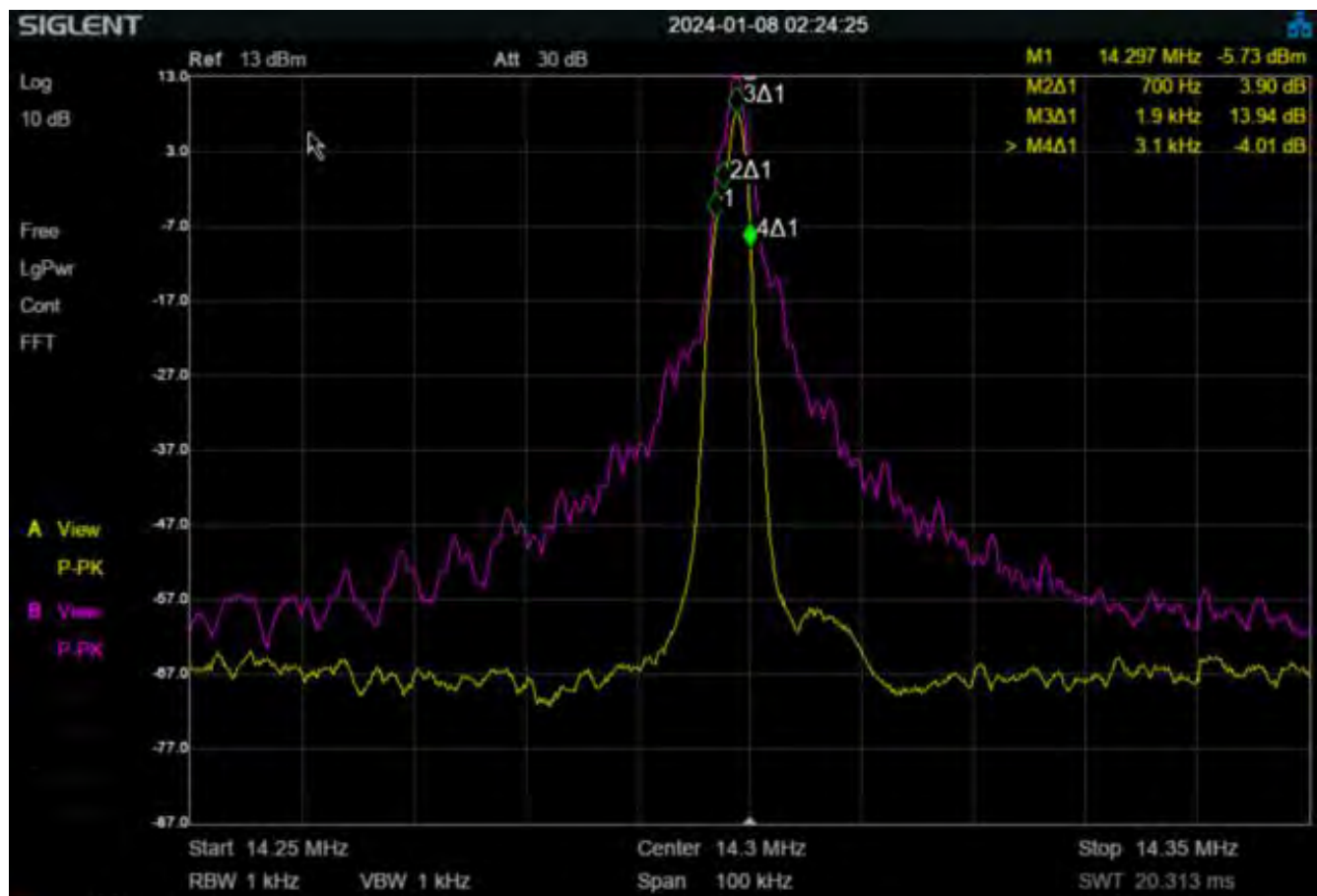
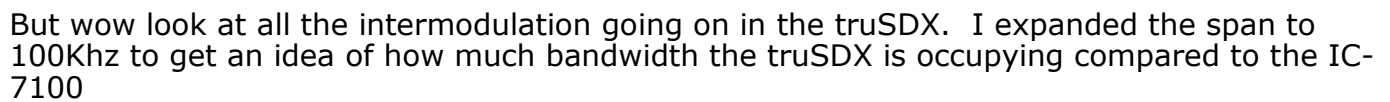
#### Additional details

- Based on QCX - modified to do SSB
- Arduino based processor - only 10bit ADC
- ☐ Better and cheaper processors they could have used
- Crystal oscillator is not temp controlled - can drift with temperature
- ☐ Need to adjust with a known good Ham radio before initial use
- Class E power amp with envelop
- ☐ Very efficient but not the best for SSB
- ☐ Has lots of intermodulation at certain frequencies
- Low Pass filters are quite good - very little harmonics
- Not a bad radio for the price, but could be better

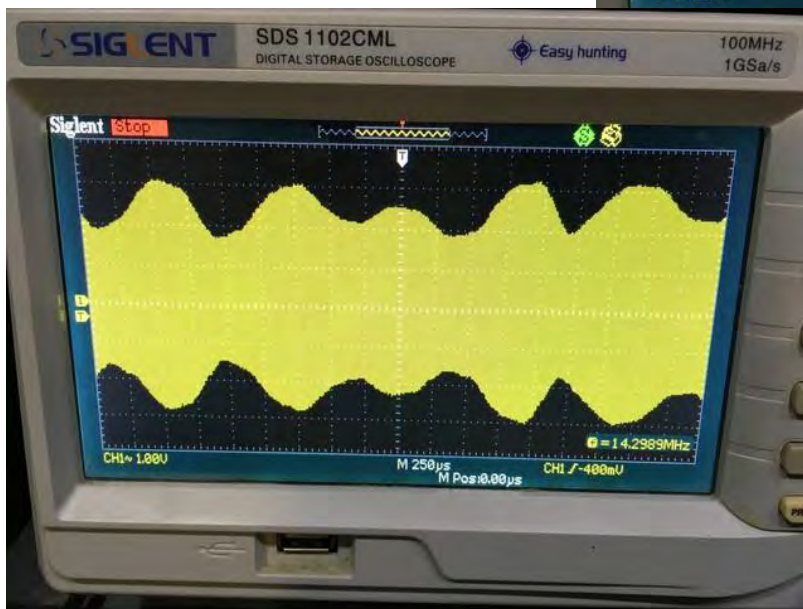
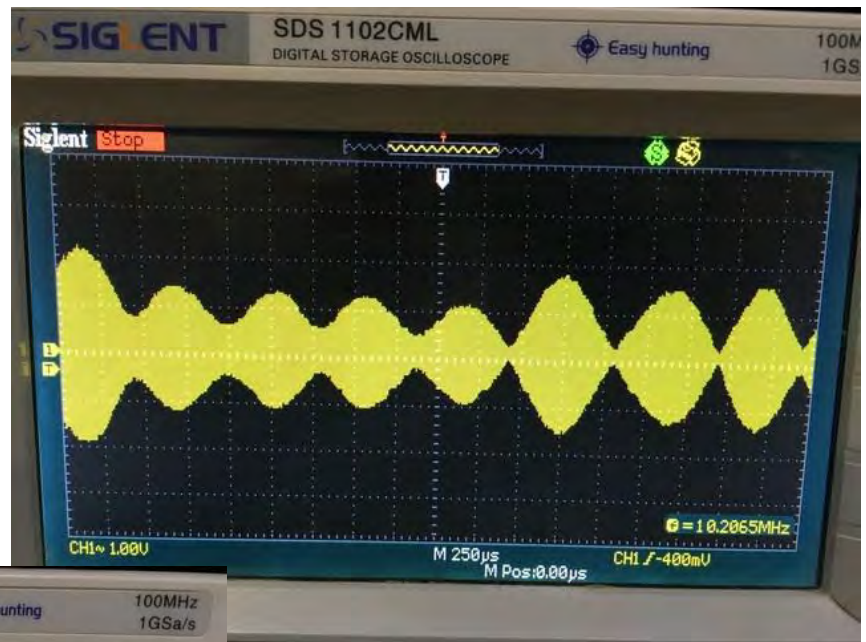
So I thought I would compare the two radios, 20m band USB. This is a two tone test 700hz & 1900Hz. First with the spectrum analyzer - span 20Khz.

The IC-7100 is in yellow, the truSDX kit is in purple. The markers are 1) Carrier 2) 700Hz 3) 1900Hz 4) 3100Hz (I believe this is the third order intercept)

First, the truSDX has the 700Hz and 1900Hz at almost equal amplitudes - which is good and the IC-7100 less amplitude on 700Hz (maybe I have some filtering on)



Same test, but this time on the scope - here is the IC-7100. Nice looking waveform, you can see where the two tone peak and null, with a pretty good looking sine wave



The truSDX, with all of those inter-modulated frequencies never does null out.

Fun stuff. For the test I had the output of the two tone generator play through a speaker and held the mic at a distance which gave the best results

So the other day when we talked about 3D printing, here is what its all about (if you are into it).

There is this kit = the truSDX - that you can build. The designers provided everything you need to build this from scratch. You can chose 'how' much you want to build yourself. You could buy this case or build it yourself. It's a choice your can make which is wonderful. Printed 3 pieces, still some more to go..

