May 2022

PROPAGATION

Newsletter of the Longview East Texas Amateur Radio Club

Test equipment and analyzer issue

In this issue

Peter K1GER works FT8 during POTA

LETARC interviews Ham Radio Workbench Podcast's George Zafiropoulos KJ6VU

Book review: Understanding your antenna analyzer by Joel Hallis W1ZR (SK)

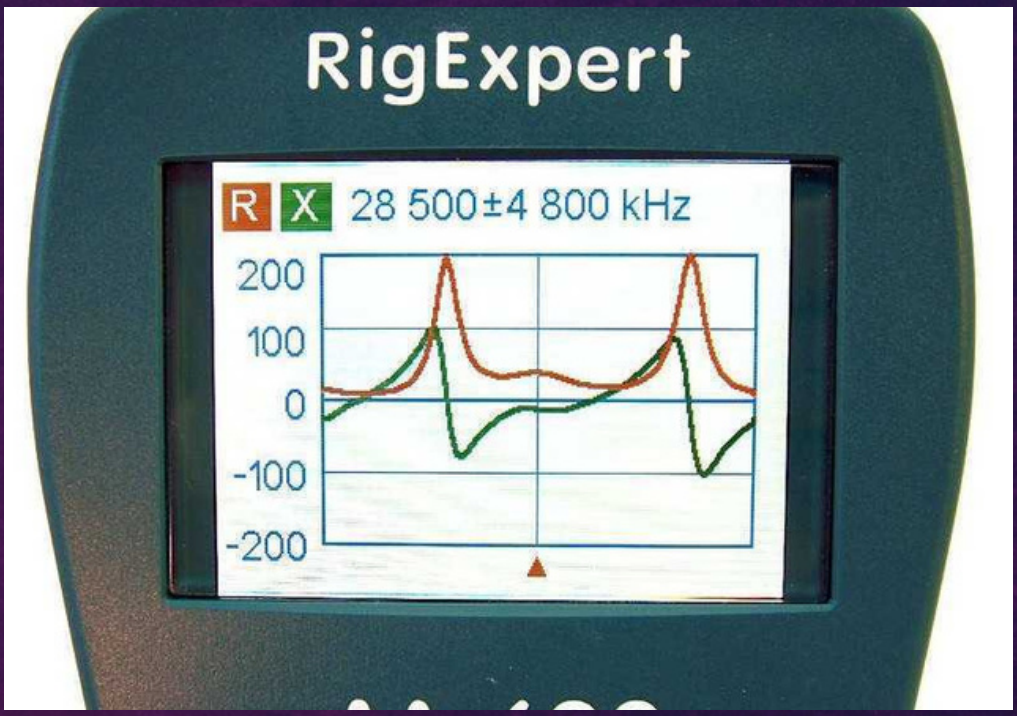
Join LETARC at our next meeting on May 28 @ 9 AM

LETARC meeting minutes from Saturday, April 23rd 2022

I. Opening Ceremonies
a.Call to order at 0905
b.Prayer and Pledge by Bert Sharp and John Zenter
c.Introductions
d.Welcome from Bert Sharp
II. Adoption of Agenda
a.Meeting agenda adopted.
III. Adoption of Minutes
a.Reading of minutes from April meeting. No objections. Adopted.
b.Reading of finance report from April. No objections. Adopted.
IV. Reports from Officers
a.President Ross Bennett – not present
b.Vice President Bert Sharp – still needs ideas on programs.
c.Secretary/Treasurer James Bray – upcoming insurance bills.
d.Media Director Don Gamble – not present
e.Communications Director Jim Rogers – not present
V. Reports of the Board
a.none.
VI. Reports by Committees
a.Social Dinner Committee Recommendation – May 10th, 6:30pm, Butcher Shop
VII. Reports by Members
a.Chris Crawford spoke of a POTO activation 08:00, Daingerfield State Park. All are welcome.
Rhett Pilcher offering himself as Club Chaplain

VIII. Recess
IX. Reconvene
X. Program
a.Mighty Moxon antenna
XI .Unfinished Business
a.Caps and t-shirts – Don Gamble
b.APRS digipeater/igate – Dave Luchak
XII. New Business
XII. VE Testing headcount
a.There are enough VE's available for testing.
XIV .Adjourn – 10:45

Thank you to James Bray KG5OFX for the meeting minutes



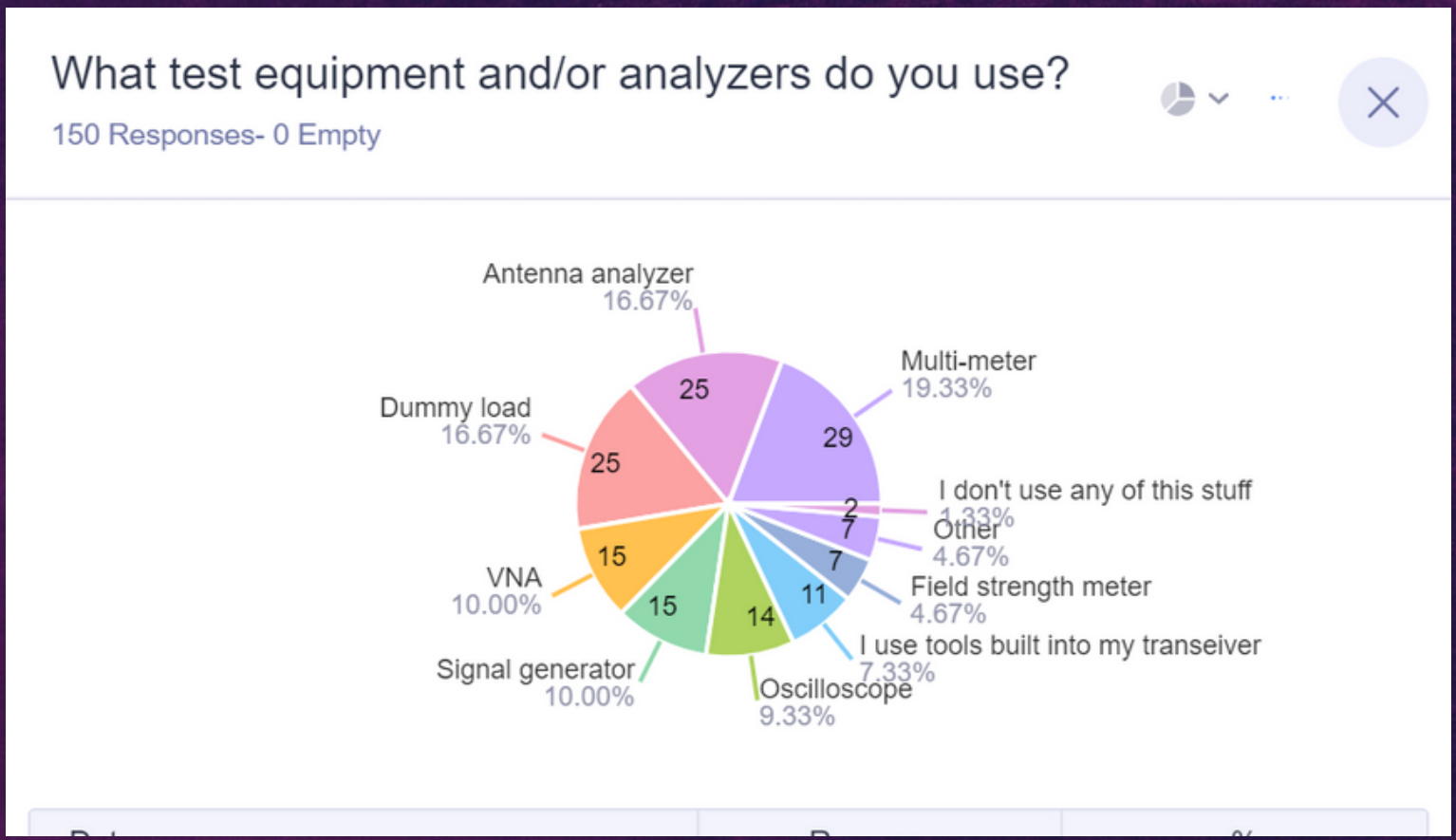
Our friend and new LETARC member Peter K1GER activates Daingerfield SP using FT8 during POTA

On Saturday, April 30th Chris KG5SMZ, Rhett KG5NWI, Peter K1GER, and Don KG5CMS set up HF stations at Daingerfield State Park. It was great to hang out and activate but the star of the show was Peter operating FT8 on 20 meters.

Chris, Rhett, and Peter at Daingerfield

LETARC survey
"What test equipment and analyzers do you use?"

19.3%	Multimeter
16.7%	Antenna analyzer
16.7%	Dummy load
10%	VNA
10%	Signal generator
9.3%	Oscilloscope
7.3%	I use tools built into my transceiver
4.7%	Field strength meter
4.7%	Other
1.3%	I don't use any of that stuff



LETARC interviews Ham Radio Workbench Podcast's George Zafiropoulos KJ6VU

Be sure to check out the Ham Radio Workbench Podcast, hosted by George KJ6VU. Click here to visit their site. George was kind enough to grant us this interview.

LETARC: Are you a member of a local radio club? If so, what is your favorite part or activity?

George KJ6VU: I am a member and co-founder of the BayNet Amateur Radio Club. We support 7 repeaters at two radio sites including conventional FM, DMR, D-STAR and Fusion. We have over 400 members on our mailing list and sponsor an annual radio conference called BayCon. You can see more information about our club and presentations from BayCon at www.bay-net.org

My very favorite activity is Field Day ! I love the camping, setup and operating in the field. It's a great opportunity to test new gear, get your portable station in good operating condition and it's a lot of fun.

LETARC: Please tell us about the Ham radio workbench podcast.

George KJ6VU: The Ham Radio Workbench podcast is published a new episode every two weeks. We focus on technical aspects of amateur radio. Everything from tools and test equipment to circuit design, building radios, antennas, Arduinos, Raspberry PI's, and more. We are all avid field operators so we do talk about our operating experience either in the shack or in the field and provide our personal opinions on equipment.

We have produced over 150 episodes and all are available on Apple Podcasts, all popular podcast players and on our web site at www.hamradioworkbench.com
I started the podcast back in 2016 with Jeremy KF7IJZ and now work with a very talented team of radio amateurs to produce the show. Together we have many many years of experience. The team includes Rod VA3ON, Mike VA3MW, Mark N6MTS and Vince VE6LK.

LETARC: What advice would you give an amatuer who wants to put together some test equipment but its unsure where to begin?

George KJ6VU: Start with the basics (We have podcast episodes for that!)
- DMM (digital multi-meter)
- Hand tools: wire cutters, needle nose pliers, soldering iron, etc.

Get the best you can afford. Most of these things will last you many years. Then you can add tools and test equipment depending on your interests. If you are doing circuit design or debugging, you will want a good oscilloscope and bench power supply.

If you are doing antenna construction you will want a good antenna analyzer. You can grow form there. Check out the early episodes of the Ham Radio Workbench. We have episodes on tools, test equipment, setting up your bench. There is a great episode that describes how to set up a good bench for $250. Lots of opinions in that one.

LETARC: Do you have any favorite analyzers, dummy (our smarty) loads, or other gear?

George KJ6VU: Yes!

Some of my favorites are:

Favorite bench power supply is a B+K current limited DC power supply
Favorite test equipment is a Digilent Analog Discovery II scope, signal generator, logic analyzer, voltmeter.
Favorite hand held DMM: Fluke
Favorite soldering station: Hakko 888
Favorite antenna analyzer: Rig Expert with the larger display

LETARC: What has been your favorite project or idea on the Ham radio workbench podcast?

George KJ6VU: There have been many projects we have discussed on the show. The most basic project is a PowerPole DC power strip. Universally useful and easy for anyone to build. For more complex projects, I designed a 2x4 port HF remotely controlled antenna switch. I use it to switch between radios to my HF antenna with the push of a button on an Elgato StreamDeck. Currently I am designing a shack automation system using a Raspberry PI running Node Red as the master controller and web server. This controller will talk to my remote coax switches and many other devices that will turn gear on and off, monitor battery voltage, RF power, temperature, etc.

LETARC: It seems like the many flavors of Nano VNA might be a game changer in the antenna analyzer world. What do you think of NanoVNAs?

George KJ6VU: I think the Nano-VNA is an awesome device if you want to really understand the circuit or antenna you are analyzing and are willing to learn a lot of detail about how to use a Smith Chart.
However, for general field use, I find the Rig Expert antenna analyzers much more practical for antenna adjustments.

LETARC: What advice would you give a local radio club?

George KJ6VU: - Focus on activities. Field Day, SOTA, T-hunt, etc.
- When a new or prospective member shows up, greet them and roll out the red carpet. Ask them what THEY are interested in doing.
- Ask ALL of your members what THEY want to do in a ham radio club.
- When a member suggests something new and different, don't dismiss it out of hand. Encourage it. I know it's not comfortable for the old hams in the club to do new things, but it's not your club, it's everyone's club.
- If a member shut's down someone else's idea, pull them aside later and coach them to be more encouraging and open minded.
- The future of the club are the younger more energetic members. Give them responsibility and ownership for new projects.
- Make sure every member's voice is heard
- Keep the business discussion to a minimum if at all.

LETARC: Is there a build project you would recommend to a club?

George KJ6VU: Antenna builds are always good. Everyone can do it. Build some dipoles for Field Day. A tape measure yagi. A simple 2m ground plane. Some end-fed wire antennas for SOTA/POTA.

LETARC: What is your favorite part of ham radio?

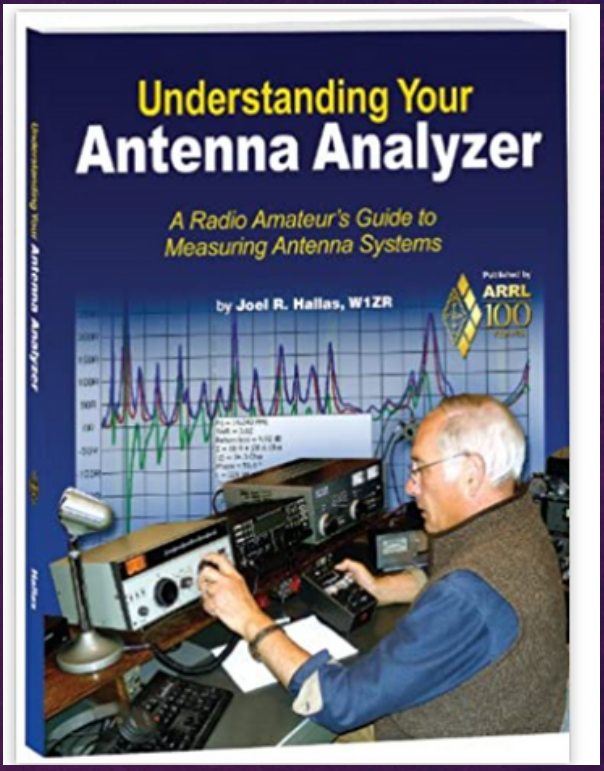
George KJ6VU: - The brilliant passionate people I get to meet. I have made many lifelong wonderful friends in ham radio. I am very grateful for that.
- I also love to design and build stuff and ham radio gives me a limitless set of projects
- There are so many things to learn. You can spend a whole lifetime learning and never cover it all.

Thank you George KJ6VU

Book review:
Understanding your antenna analyzer
by Joel Hallis W1ZR (SK)

You may remember Joel Hallis from his time as the ARRL's doctor from "the doctor is in" QST article and podcast. Joel was an incredible source of knowledge and he will be missed in our ham radio community.

Joel wrote several excellent books. Understanding your antenna analyzer is one of them. In this book W1ZR describes various analyzers and their components. Joel mentions specific attributes to each of the models and how they can be helpful. Many analyzers can text coax cable, serve as frequency counters, and some can provide info beyond simple VSWR reading. If you are going to spend the money on a good analyzer this book would be a good choice to help you use it.



This book is currently overpriced on amazon.com, contact Don KG5CMS if you would like to borrow it.

A giant thank you to

George Zafiropoulos KJ6VU from the Ham radio workbench podcast
Mims volunteer fire department
The Longview fire training center on American Legion BLVD
Dave Luchak KL7BX LETARC dinner Chairman
Jim Perry KA5BCM for our radio room
John Zenter AE5OY and our VE team
Marty Duplissey N5KBP for his great work on the ARRL audio news
Steven Lott Smith KG5VK - ARRL North Texas Section Manager
JoAnn Keith KA5AZK - ARES Section Manager
Ross Bennett KI5SR - Gregg County ARES
David Chenault W5CWT - Rusk County ARES
John Keith W5BWC - Upshur County ARES
Tom Noe W5TDN - Gregg County SKYWARN coordinator
Jim Rogers N5VGQ - Repeater trustee
Ron Case W2RLC - letarc.org webmaster
Jim Quinn AJ1MQ - groups.io coordinator
Dr. Hoo Kim AG5ZS - Letourneau university liaison
Dr. Ron Morton KF5GMA & Carolyn Morton KF5GLT Longview CERT

Thank you for reading our newsletter. We hope to see you at our meetings and dinner gatherings and we hope to hear you on our nets. If you would like to contribute to the PROPAGATION please email Don at gambledon@gmail.com.

Please visit our website at letarc.org.

73 de Don Gamble KG5CMS.

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LETARC MAY 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 3.805 MHZ NET 7:30PM	2	3	4 LETARC NET 8:30 PM	5 UPSHUR ARES NET 8 PM	6	7
8 3.805 MHZ NET 7:30PM	9	10	11 LETARC NET 8:30 PM	12 UPSHUR ARES NET 8 PM	13	14
15 3.805 MHZ NET 7:30PM	16	17	18 LETARC NET 8:30 PM	19 UPSHUR ARES NET 8 PM	20	21
22 3.805 MHZ NET 7:30PM	23	24	25 LETARC NET 8:30 PM	26 UPSHUR ARES NET 8 PM	27	28 MEETING 9AM
29 3.805 MHZ NET 7:30PM	30	31	1	2	3	4

May ham radio stuff

May 7 10-10 International Spring Contest, CW
May 7 7th call area QSO Party
May 7 Indiana QSO Party
May 7 Delaware QSO Party
May 7 New England QSO Party
May 14 Canadian Prairies QSO Party
May 19 Nantucket QSO Party
May 21 Arkansas QSO Party